	2006-2016 Arizona Statewide Occupational Projections									
	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	yment	10 Year	Change	Averag	e Annual Ope	nings		
SOC		2006	2016			Due to	Due to			
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>		
00-0000	Total, All Occupations	2,885,072	3,323,530	438,458	15.2%	45,791	64,970	110,761		
11-0000	Management Occupations	161,132	179,858	18,726	11.6%	1,875	3,416	5,291		
11-1000	Top Executives	43,524	45,933	2,409	5.5%	241	1,072	1,313		
11-1011	Chief Executives	8,280	8,524	244	2.9%	24	226	250		
11-1021	General and Operations Managers	34,374	36,537	2,163	6.3%	216	829	1,045		
11-1031	Legislators	870	872	2	0.2%	0	17	17		
11-2000	Advertising, Marketing, Promotions, Public Relations, and									
	Sales Managers	15,061	17,045	1,984	13.2%	198	336	534		
11-2011	Advertising and Promotions Managers	1,055	1,120	65	6.2%	7	23	30		
11-2021	Marketing Managers	3,795	4,292	497	13.1%	50	84	134		
11-2022	Sales Managers	9,184	10,384	1,200	13.1%	120	204	324		
11-2031	Public Relations Managers	1,027	1,249	222	21.6%	22	24	46		
11-3000	Operations Specialties Managers	28,095	32,101	4,006	14.3%	403	574	977		
11-3011	Administrative Services Managers	5,130	5,965	835	16.3%	84	136	220		
11-3021	Computer and Information Systems Managers	4,568	5,265	697	15.3%	70	74	144		
11-3031	Financial Managers	10,094	11,741	1,647	16.3%	165	147	312		
11-3041	Compensation and Benefits Managers	1,087	1,263	176	16.2%	18	20	38		
	Training and Development Managers	823	952	129	15.7%	13	16	29		
11-3049	Human Resources Managers, All Other	1,439	1,638	199	13.8%	20	27	47		
11-3051	Industrial Production Managers	2,001	1,982	-19	-0.9%	0	69	69		
11-3061	Purchasing Managers	1,522	1,677	155	10.2%	16	44	60		
11-3071	Transportation, Storage, and Distribution Managers	1,431	1,618	187	13.1%	19	43	62		
11-9000	Other Management Occupations	74,452	84,779	10,327	13.9%	1,033	1,434	2,467		
11-9011	Farm, Ranch, and Other Agricultural Managers	2,908	3,173	265	9.1%	27	21	48		
11-9021	Construction Managers	9,437	10,048	611	6.5%	61	146	207		
11-9031	Education Administrators, Preschool and Child Care	1,282	1,644	362	28.2%	36	36	72		
11-9032	Education Administrators, Elementary and Secondary School									
		3,388	4,154	766	22.6%	77	94	171		
11-9033	Education Administrators, Postsecondary	2,488	3,609	1,121	45.1%	112	69	181		
11-9039	Education Administrators, All Other	411	465	54	13.1%	5	12	17		
11-9041	Engineering Managers	5,422	6,166	744	13.7%	74	110	184		
11-9051	Food Service Managers	9,516	10,196	680	7.1%	68	225	293		
11-9061	Funeral Directors	408	464	56	13.7%	6	10	16		
11-9071		620	671	51	8.2%	5	12	17		
11-9081	Lodging Managers	2,594	2,716	122	4.7%	12	57	69		
11-9111	Medical and Health Services Managers	5,778	6,943	1,165	20.2%	117	108	225		
11-9121	Natural Sciences Managers	442	576	134	30.3%	13	10	23		

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	yment	10 Year	Change	Average	e Annual Ope	nings
soc		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
11-9131	Postmasters and Mail Superintendents	188	193	5	2.7%	1	5	6
11-9141	Property, Real Estate, and Community Association Managers							
44 0454	Conicl and Community Comics Managers	10,773	12,127	1,354	12.6%	135	149	284
11-9151 11-9199	Social and Community Service Managers Managers, All Other	2,936 15,861	3,545 18,089	609 2,228	20.7% 14.0%	61 223	56 316	117 539
13-0000	Business and Financial Operations Occupations	128,831	155,902	27,071	21.0%	2,707	2,291	4,998
13-1000	Business Operations Specialists	70,354	83,897	13,543	19.2%	1,354	1,274	2,628
13-1011	Agents and Business Managers of Artists, Performers, and	893	1,293	400	44.8%	40	24	64
13-1021	Purchasing Agents and Buyers, Farm Products	409	431	22	5.4%	2	5	7
13-1022	Wholesale and Retail Buyers, Except Farm Products	3,206	3,350	144	4.5%	14	72	86
	Purchasing Agents, Except Wholesale, Retail, and Farm	6,059	6,571	512	8.5%	51	130	181
13-1031	· · · · · · · · · · · · · · · · · · ·	3,619	4,423	804	22.2%	80	92	172
	Insurance Appraisers, Auto Damage	168	189	21	12.5%	2	4	6
13-1041	·	4.004	4.007	200	0.50/	07	50	07
40.4054	and Safety, and Transportation	4,321	4,687	366	8.5%	37	50	87
13-1051 13-1061	Cost Estimators	4,810 123	5,538 127	728 4	15.1% 3.3%	73 0	99	172 1
13-1001	Emergency Management Specialists Employment, Recruitment, and Placement Specialists	4,137	5,179	1,042	25.2%	104	89	193
13-1071	· · ·	2,290	2,834	544	23.8%	54	49	103
13-1073		5,894	7,186	1,292	21.9%	129	127	256
13-1079		2,221	,,,,,	,				
	All Other	2,764	3,493	729	26.4%	73	60	133
13-1081	Logisticians	1,796	2,051	255	14.2%	26	27	53
13-1111	Management Analysts	17,586	21,213	3,627	20.6%	363	300	663
13-1121	Meeting and Convention Planners	1,384	1,614	230	16.6%	23	28	51
13-1199	Business Operations Specialists, All Other	10,895	13,718	2,823	25.9%	282	117	399
13-2000	Financial Specialists	58,477	72,005	13,528	23.1%	1,353	1,017	2,370
13-2011	Accountants and Auditors	25,939	33,156	7,217	27.8%	722	456	1,178
13-2021	Appraisers and Assessors of Real Estate	3,813	4,691	878	23.0%	88	76	164
13-2031	Budget Analysts	1,550	1,634	84	5.4%	8	36 150	44
13-2041 13-2051	Credit Analysts Financial Analysts	3,919 3,821	4,411 5,182	492 1,361	12.6% 35.6%	49 136	150 22	199 158
	Personal Financial Advisors	3,837	5,162	1,388	36.2%	139	35	174
	Insurance Underwriters	1,495	1,571	76	5.1%	8	40	48
13-2061	Financial Examiners	1,121	1,466	345	30.8%	35	20	55
13-2071	Loan Counselors	912	1,125	213	23.4%	21	10	31
13-2072		8,296	9,377	1,081	13.0%	108	89	197
	Tax Examiners, Collectors, and Revenue Agents	684	725	41	6.0%	4	17	21
13-2082	Tax Preparers	1,744	1,916	172	9.9%	17	31	48

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	yment	10 Year	10 Year Change			nings
soc		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
13-2099	Financial Specialists, All Other	1,346	1,526	180	13.4%	18	36	54
15-0000	Computer and Mathematical Occupations	62,309	75,913	13,604	21.8%	1,409	1,370	2,779
15-1000	Computer Specialists	59,491	72,850	13,359	22.5%	1,384	1,309	2,693
15-1011	Computer and Information Scientists, Research	255	299	44	17.3%	4	7	11
15-1021	Computer Programmers	7,467	6,984	-483	-6.5%	0	156	156
15-1031	Computer Software Engineers, Applications	9,035	12,519	3,484	38.6%	348	132	480
15-1032	Computer Software Engineers, Systems Software	6,942	8,124	1,182	17.0%	118	101	219
15-1041	Computer Support Specialists	12,827	14,981	2,154	16.8%	215	396	611
15-1051	Computer Systems Analysts	8,463	10,733	2,270	26.8%	227	224	451
15-1061	Database Administrators	3,054	3,981	927	30.4%	93	33	126
15-1071	· · · · · · · · · · · · · · · · · · ·	4,834	6,163	1,329	27.5%	133	110	243
15-1081	Network Systems and Data Communications Analysts	4,180	6,375	2,195	52.5%	220	85	305
15-1099	Computer Specialists, All Other	2,434	2,691	257	10.6%	26	65	91
15-2000	Mathematical Scientists	2,818	3,063	245	8.7%	25	61	86
15-2011	Actuaries	137	157	20	14.6%	2	5	7
15-2031	Operations Research Analysts	2,433	2,625	192	7.9%	19	49	68
15-2041	Statisticians	200	222	22	11.0%	2	6	8
17-0000	Architecture and Engineering Occupations	48,939	53,063	4,124	8.4%	522	1,094	1,616
17-1000	Architects, Surveyors, and Cartographers	2,804	3,388	584	20.8%	58	70	128
17-1011	Architects, Except Landscape and Naval	961	1,146	185	19.3%	19	18	37
17-1012	Landscape Architects	396	478	82	20.7%	8	8	16
17-1021	Cartographers and Photogrammetrists	415	491	76	18.3%	8	13	21
17-1022	Surveyors	1,032	1,273	241	23.4%	24	32	56
17-2000	Engineers	30,920	33,815	2,895	9.4%	358	697	1,055
17-2011	Aerospace Engineers	3,060	3,485	425	13.9%	43	61	104
17-2031	Biomedical Engineers	139	177	38	27.3%	4	3	7
17-2041	Chemical Engineers	278	350	72	25.9%	7	7	14
17-2051	Civil Engineers	2,505	2,968	463	18.5%	46	66	112
17-2071	Electrical Engineers	5,486	6,189	703	12.8%	70	127	197
17-2072		3,500	3,033	-467	-13.3%	0	81	81
17-2081	Environmental Engineers	549	646	97	17.7%	10	16	26
17-2111	Health and Safety Engineers, Except Mining Safety Engineers							
	and Inspectors	686	784	98	14.3%	10	17	27
17-2112	Industrial Engineers	3,500	4,252	752	21.5%	75	84	159
17-2131	Materials Engineers	640	573	-67	-10.5%	0	15	15
17-2141	Mechanical Engineers	4,500	5,037	537	11.9%	54	98	152
17-2151	Mining and Geological Engineers, Including Mining Safety							
	Engineers	230	288	58	25.2%	6	5	11
17-2161	Nuclear Engineers	995	1,115	120	12.1%	12	23	35

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	/ment	10 Year	Change	Average	e Annual Ope	Total <sup>2</sup> 54 432 51 15 61 38 109 11 19 24 29 38		
soc		2006	2016			Due to	Due to			
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>		
17-2199	Engineers, All Other	2,864	3,068	204	7.1%	20	34	54		
17-3000	Drafters, Engineering, and Mapping Technicians	15,215	15,860	645	4.2%	105	327	432		
17-3011	Architectural and Civil Drafters	1,282	1,418	136	10.6%	14	37			
17-3012	Electrical and Electronics Drafters	536	523	-13	-2.4%	0	15			
17-3013		1,277	1,516	239	18.7%	24	37			
	Civil Engineering Technicians	1,080	1,247	167	15.5%	17	21			
17-3023	Electrical and Electronic Engineering Technicians	5,568	5,218	-350	-6.3%	0	109			
17-3024		461	477	16	3.5%	2	9			
	Environmental Engineering Technicians	380	496	116	30.5%	12	7			
	Industrial Engineering Technicians	1,252	1,206	-46	-3.7%	0	24			
	Mechanical Engineering Technicians	941	1,047	106	11.3%	11	18			
17-3029	Engineering Technicians, Except Drafters, All Other	1,405	1,512	107	7.6%	11	27			
17-3031	Surveying and Mapping Technicians	697	818	121	17.4%	12	13	25		
19-0000	Life, Physical, and Social Science Occupations	18,643	22,758	4,115	22.1%	412	425	837		
19-1000	Life Scientists	2,306	2,930	624	27.1%	62	63	125		
19-1012	<u> </u>	72	95	23	31.9%	2	2	4		
	Soil and Plant Scientists	71	74	3	4.2%	0	2	2		
19-1023		300	319	19	6.3%	2	6	8		
19-1029	Biological Scientists, All Other	369	423	54	14.6%	5	8	13		
19-1031	Conservation Scientists	207	247	40	19.3%	4	6	10		
19-1041	Epidemiologists	76	87	11	14.5%	1	2	3		
19-1042	Medical Scientists, Except Epidemiologists	381	497	116	30.4%	12	12	24		
19-1099		116	151	35	30.2%	4	4	8		
19-2000	•	2,540	3,073	533	21.0%	53	63	116		
19-2021	Atmospheric and Space Scientists	151	159	8	5.3%	1	4	5		
19-2031	Chemists	625	757	132	21.1%	13	17	30		
19-2032		116	134	18	15.5%	2	3	5		
19-2041		662	848	186	28.1%	19	17	36		
19-2042		170	215	45	26.5%	5	4	9		
19-2043	Hydrologists	255	299	44	17.3%	4	7	11		
19-3000	Social Scientists and Related Workers	9,485	11,328	1,843	19.4%	184	140	324		
19-3011	Economists	103	115	12	11.7%	1	3	4		
19-3021	Market Research Analysts	3,623	4,243	620	17.1%	62	25	87		
19-3022	Survey Researchers	936	1,250	314	33.5%	31	6	37		
19-3031	Clinical, Counseling, and School Psychologists	2,498	3,183	685	27.4%	69	38	107		
19-3039	Psychologists, All Other	245	288	43	17.6%	4	4	8		
19-3041	Sociologists	50	69	19	38.0%	2	1	3		
19-3051	Urban and Regional Planners	747	824	77	10.3%	8	22	30		
19-3091	Anthropologists and Archeologists	154	181	27	17.5%	3	5	8		

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	/ment	10 Year	Change	Average	e Annual Ope	nings
SOC		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
19-3099	Social Scientists and Related Workers, All Other	1,078	1,120	42	3.9%	4	34	38
19-4000	Life, Physical, and Social Science Technicians	4,312	5,427	1,115	25.9%	112	159	271
19-4021	Biological Technicians	295	362	67	22.7%	7	11	18
19-4031	Chemical Technicians	375	428	53	14.1%	5	13	18
19-4061	Social Science Research Assistants	182	271	89	48.9%	9	7	16
19-4091		621	898	277	44.6%	28	24	52
19-4092		459	585	126	27.5%	13	18	31
	Forest and Conservation Technicians	1,158	1,255	97	8.4%	10	44	54
	Life, Physical, and Social Science Technicians, All Other	1,008	1,397	389	38.6%	39	38	77
	Community and Social Services Occupations	28,735	37,077	8,342	29.0%	834	492	1,326
21-1000	Counselors, Social Workers, and Other Community and Social				00 =0/			
	Service Specialists	25,974	33,638	7,664	29.5%	766	449	1,215
	Substance Abuse and Behavioral Disorder Counselors	470	634	164	34.9%	16	9	25
	Educational, Vocational, and School Counselors	5,932	8,009	2,077	35.0%	208	118	326
21-1013	Marriage and Family Therapists	358	491	133	37.2%	13	7	20
21-1014	Mental Health Counselors	1,278	1,795	517	40.5%	52	25	77
21-1015	Rehabilitation Counselors	661	816	155	23.4%	16	13	29
21-1019	Counselors, All Other	253	305	52	20.6%	5	5	10
21-1021	Child, Family, and School Social Workers	3,614	4,213	599	16.6%	60	76	136
	Medical and Public Health Social Workers	1,829	2,435	606	33.1%	61	39	100
21-1023		1,659 720	2,060	401	24.2%	40	35 4.5	75 22
	Social Workers, All Other Health Educators	1,004	895 1,502	175 498	24.3% 49.6%	18 50	15 12	33 62
21-1091	Probation Officers and Correctional Treatment Specialists	3,696	4,133	496	11.8%	44	43	87
	Social and Human Service Assistants	3,491	5,057	1,566	44.9%	157	40	197
21-1093		1,009	1,293	284	28.1%	28	12	40
21-2000		2,761	3,439	678	24.6%	68	43	111
21-2001	Directors, Religious Activities and Education	943	1,215	272	28.8%	27	22	49
23-0000		22,987	27,413	4,426	19.3%	443	400	843
23-1000	Lawyers, Judges, and Related Workers	14,238	17,154	2,916	20.5%	292	270	562
23-1011	Lawyers	13,187	16,019	2,832	21.5%	283	250	533
23-1023	Judges, Magistrate Judges, and Magistrates	575	615	40	7.0%	4	11	15
23-2000		8,749	10,259	1,510	17.3%	151	130	281
23-2011	Paralegals and Legal Assistants	4,487	5,865	1,378	30.7%	138	59	197
23-2091	Court Reporters	368	409	41	11.1%	4	6	10
23-2092	Law Clerks	1,290	1,303	13	1.0%	1	21	22
23-2093	Title Examiners, Abstractors, and Searchers	2,221	2,263	42	1.9%	4	37	41
23-2099	Legal Support Workers, All Other	383	419	36	9.4%	4	6	10
25-0000	Education, Training, and Library Occupations	131,244	170,119	38,875	29.6%	3,888	2,744	6,632

;	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	/ment	10 Year	Change	Average	e Annual Openings	
SOC		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
25-1000	Postsecondary Teachers	20,939	31,939	11,000	52.5%	1,100	350	1,450
25-1011	Business Teachers, Postsecondary	1,281	1,772	491	38.3%	49	21	70
25-1021	Computer Science Teachers, Postsecondary	1,350	2,018	668	49.5%	67	23	90
25-1022	Mathematical Science Teachers, Postsecondary	756	1,003	247	32.7%	25	13	38
25-1041	Agricultural Sciences Teachers, Postsecondary	67	98	31	46.3%	3	1	4
	Biological Science Teachers, Postsecondary	622	939	317	51.0%	32	10	42
25-1051								
	Postsecondary	106	163	57	53.8%	6	2	8
	Chemistry Teachers, Postsecondary	291	457	166	57.0%	17	5	22
	Environmental Science Teachers, Postsecondary	107	182	75	70.1%	8	2	10
	Physics Teachers, Postsecondary	69	105	36	52.2%	4	1	5
	Anthropology and Archeology Teachers, Postsecondary Area, Ethnic, and Cultural Studies Teachers, Postsecondary	83	121	38	45.8%	4	1	5
		188	286	98	52.1%	10	3	13
25-1063	Economics Teachers, Postsecondary	65	101	36	55.4%	4	1	5
25-1064	Geography Teachers, Postsecondary	118	167	49	41.5%	5	2	7
25-1065	Political Science Teachers, Postsecondary	128	177	49	38.3%	5	2	7
25-1066	Psychology Teachers, Postsecondary	108	143	35	32.4%	4	2	6
25-1067	Sociology Teachers, Postsecondary	85	118	33	38.8%	3	1	4
25-1071	Health Specialties Teachers, Postsecondary	1,684	2,758	1,074	63.8%	107	28	135
25-1072	Nursing Instructors and Teachers, Postsecondary	547	750	203	37.1%	20	9	29
25-1081	Education Teachers, Postsecondary	276	382	106	38.4%	11	5	16
25-1111	Criminal Justice and Law Enforcement Teachers,	209	271	62	29.7%	6	4	10
25-1121	Art, Drama, and Music Teachers, Postsecondary	498	767	269	54.0%	27	8	35
25-1122	Communications Teachers, Postsecondary	279	397	118	42.3%	12	5	17
25-1123	English Language and Literature Teachers, Postsecondary	1,140	1,683	543	47.6%	54	19	73
	Foreign Language and Literature Teachers, Postsecondary	265	372	107	40.4%	11	4	15
	History Teachers, Postsecondary	210	285	75	35.7%	8	4	12
		152	210	58	38.2%	6	3	9
25-1191	Graduate Teaching Assistants	3,338	5,655	2,317	69.4%	232	56	288
	Vocational Education Teachers, Postsecondary	2,214	3,318	1,104	49.9%	110	37	147
25-1199	Postsecondary Teachers, All Other	2,947	4,339	1,392	47.2%	139	49	188
25-2000	Primary, Secondary, and Special Education School Teachers							
		76,283	96,019	19,736	25.9%	1,974	1,779	3,753
25-2011	Preschool Teachers, Except Special Education	5,573	6,438	865	15.5%	87	92	179
25-2012	Kindergarten Teachers, Except Special Education	2,877	3,814	937	32.6%	94	48	142
25-2021	Elementary School Teachers, Except Special Education	36,372	47,076	10,704	29.4%	1,070	794	1,864
25-2022	Middle School Teachers, Except Special and Vocational Education	7,230	9,170	1,940	26.8%	194	158	352

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	/ment	10 Year	Change	Average	e Annual Ope	nings
soc		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
25-2031	Secondary School Teachers, Except Special and Vocational							
	Education	18,914	22,828	3,914	20.7%	391	563	954
25-2041	Special Education Teachers, Preschool, Kindergarten, and	0.404	0.000	000	0.4.007	0.4	<b>5.</b> 4	400
25-2042	Elementary School Special Education Teachers, Middle School	2,424 849	3,262 1,102	838 253	34.6% 29.8%	84 25	54 19	138 44
	Special Education Teachers, Middle School  Special Education Teachers, Secondary School	1,005	1,102	197	19.6%	20	22	42
25-3000	·	5,890	8,095	2,205	37.4%	221	63	284
	Adult Literacy, Remedial Education, and GED Teachers and	3,030	0,000	2,200	37.470	221	00	204
20 0011	Instructors	1,247	1,701	454	36.4%	45	13	58
25-3021	Self-Enrichment Education Teachers	2,392	3,440	1,048	43.8%	105	26	131
	Teachers and Instructors, All Other	2,251	2,954	703	31.2%	70	24	94
25-4000	Librarians, Curators, and Archivists	4,656	5,538	882	18.9%	88	178	266
25-4011	Archivists	92	106	14	15.2%	1	4	5
25-4012		302	372	70	23.2%	7	13	20
25-4013	Museum Technicians and Conservators	226	264	38	16.8%	4	10	14
25-4021	Librarians	2,100	2,448	348	16.6%	35	57	92
25-4031	Library Technicians	1,936	2,348	412	21.3%	41	94	135
25-9000	• • • • • • • • • • • • • • • • • • • •	23,476	28,528	5,052	21.5%	505	374	879
25-9031	Instructional Coordinators	2,716	3,834	1,118	41.2%	112	37	149
25-9041		20,304	24,218	3,914	19.3%	391	331	722
25-9099		381	399	18	4.7%	2	5	7
27-0000	· • · · · · · · · · · · · · · · · · · ·	41,734	47,432	5,698	13.7%	589	1,017	1,606
27-1000	Art and Design Workers	15,025	16,726	1,701	11.3%	171	391	562
27-1011	Art Directors	938	989	51	5.4%	5	22	27
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	441	532	91	20.6%	9	10	19
27-1014 27-1019	Multi-Media Artists and Animators Artists and Related Workers, All Other	932 115	1,091 132	159 17	17.1% 14.8%	16 2	22 3	38 5
27-1019	Commercial and Industrial Designers	632	664	32	5.1%	3	17	20
27-1023	Floral Designers	1,382	1,378	-4	-0.3%	0	37	37
27-1024	Graphic Designers	5,919	6,629	710	12.0%	71	157	228
27-1025	Interior Designers	1,779	1,944	165	9.3%	17	47	64
	Merchandise Displayers and Window Trimmers	2,323	2,713	390	16.8%	39	62	101
	Set and Exhibit Designers	152	200	48	31.6%	5	4	9
27-1029	Designers, All Other	278	320	42	15.1%	4	7	11
27-2000	Entertainers and Performers, Sports and Related Workers	6,978	8,510	1,532	22.0%	153	192	345
27-2012		1,173	1,349	176	15.0%	18	35	53
	Coaches and Scouts	1,849	2,359	510	27.6%	51	48	99
27-2023	Umpires, Referees, and Other Sports Officials	1,116	1,228	112	10.0%	11	29	40
27-2041	Music Directors and Composers	206	268	62	30.1%	6	4	10

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	yment	10 Year Change Average			e Annual Ope	Annual Openings	
SOC		2006	2016			Due to	Due to		
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>	
27-2042	Musicians and Singers	896	1,186	290	32.4%	29	18	47	
27-3000	Media and Communication Workers	13,708	15,227	1,519	11.1%	170	282	452	
27-3011	Radio and Television Announcers	1,182	1,049	-133	-11.3%	0	40	40	
27-3012	•	165	153	-12	-7.3%	0	6	6	
27-3021	Broadcast News Analysts	64	64	0	0.0%	0	2	2	
27-3022	·	586	554	-32	-5.5%	0	18	18	
27-3031	Public Relations Specialists	3,816	4,612	796	20.9%	80	29	109	
27-3041	Editors	1,534	1,631	97	6.3%	10	46	56	
27-3042	Technical Writers	1,025	1,155	130	12.7%	13	31	44	
27-3043	Writers and Authors	2,830	3,085	255	9.0%	26	51	77	
27-3091	·	1,293	1,573	280	21.7%	28	31	59	
27-3099		1,213	1,351	138	11.4%	14	29	43	
27-4000	· · · · · · · · · · · · · · · · · · ·	6,023	6,969	946	15.7%	95	152	247	
27-4011	Audio and Video Equipment Technicians	1,252	1,911	659	52.6%	66	41	107	
27-4012	Broadcast Technicians	474	535	61	12.9%	6	15	21	
27-4021	Photographers	3,402	3,448	46	1.4%	5	75	80	
27-4031	Camera Operators, Television, Video, and Motion Picture	298	357	59	19.8%	6	6	12	
27-4032		208	224	16	7.7%	2	4	6	
27-4099	Media and Communication Equipment Workers, All Other	205	235	30	14.6%	3	5	8 <b>5.077</b>	
	Healthcare Practitioners and Technical Occupations	120,182	156,636	36,454	30.3%	3,647	2,330	5,977	
	Health Diagnosing and Treating Practitioners	72,488 214	94,129 295	21,641	29.9% 37.9%	2,165	1,225	3,390	
29-1011	Chiropractors  Posticita Conoral	3,792		81 1 105	37.9% 29.1%	8	2 74	10 185	
29-1021 29-1029	Dentists, General Dentists, All Other Specialists	3,792 95	4,897 109	1,105 14	14.7%	111		3	
29-1029	Dietitians and Nutritionists	1,319	1,637	318	24.1%	32	33	65	
29-1031	Optometrists	414	411	-3	-0.7%	0	7	7	
29-1041	Pharmacists	4,314	6,206	1,892	43.9%	189	75	264	
	Family and General Practitioners	1,790	2,244	454	25.4%	45	32	77	
	Obstetricians and Gynecologists	411	510	99	24.1%	10	7	17	
29-1065	Pediatricians, General	961	1,150	189	19.7%	19	17	36	
29-1066	Psychiatrists Psychiatrists	137	165	28	20.4%	3	3	6	
	Surgeons	771	900	129	16.7%	13	14	27	
29-1069	Physicians and Surgeons, All Other	3,057	3,822	765	25.0%	77	55	132	
29-1071	Physician Assistants	1,914	2,484	570	29.8%	57	26	83	
29-1081	Podiatrists	176	217	41	23.3%	4	6	10	
29-1111	Registered Nurses	36,219	47,647	11,428	31.6%	1,143	598	1,741	
29-1122	Occupational Therapists	1,271	1,612	341	26.8%	34	19	53	
29-1123	Physical Therapists	1,964	2,567	603	30.7%	60	24	84	
29-1125	·	196	206	10	5.1%	1	3	4	

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	yment	10 Year	Change	ge Average Annual Openings			
soc		2006	2016			Due to	Due to		
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>	
29-1126	Respiratory Therapists	3,086	4,042	956	31.0%	96	45	141	
29-1127	Speech-Language Pathologists	1,556	1,865	309	19.9%	31	30	61	
29-1129	Therapists, All Other	134	151	17	12.7%	2	2	4	
29-1131	Veterinarians	1,156	1,683	527	45.6%	53	23	76	
29-1199	Health Diagnosing and Treating Practitioners, All Other	3,669	4,593	924	25.2%	92	63	155	
29-2000	<u> </u>	44,790	59,056	14,266	31.9%	1,427	1,049	2,476	
29-2011	Medical and Clinical Laboratory Technologists	2,353	2,950	597 819	25.4% 34.0%	60 82	36 36	96 118	
29-2012	Medical and Clinical Laboratory Technicians Dental Hygienists	2,411 3,625	3,230 5,440	1,815	50.1%	182	69	251	
29-2021	Cardiovascular Technologists and Technicians	1,172	1,548	376	32.1%	38	16	54	
29-2031	Diagnostic Medical Sonographers	825	1,066	241	29.2%	24	11	35	
		370	462	92	24.9%	9	5	14	
29-2034	•	4,149	5,311	1,162	28.0%	116	56	172	
29-2041	Emergency Medical Technicians and Paramedics	1,307	1,616	309	23.6%	31	15	46	
29-2051	Dietetic Technicians	746	888	142	19.0%	14	23	37	
29-2052	Pharmacy Technicians	5,495	8,645	3,150	57.3%	315	168	483	
29-2053	Psychiatric Technicians	1,529	1,915	386	25.2%	39	47	86	
29-2055	Surgical Technologists	1,096	1,498	402	36.7%	40	34	74	
29-2056	Veterinary Technologists and Technicians	1,692	2,750	1,058	62.5%	106	52	158	
29-2061	Licensed Practical and Licensed Vocational Nurses	11,810	13,989	2,179	18.5%	218	322	540	
29-2071	Medical Records and Health Information Technicians	4,592	5,701	1,109	24.2%	111	124	235	
29-2081	Opticians, Dispensing	819	1,121	302	36.9%	30	26	56	
29-2099	Health Technologists and Technicians, All Other	434	519	85	19.6%	9	3	12	
29-9000	Other Healthcare Practitioners and Technical Occupations	2,904	3,451	547	18.8%	55	55	110	
29-9011	Occupational Health and Safety Specialists	771	812	41	5.3%	4	15	19	
29-9012	·	204	219	15	7.4%	2	4	6	
29-9091	Athletic Trainers	189	235	46	24.3%	5	4	9	
29-9099		1,740	2,185	445	25.6% <b>33.2%</b>	45 2 4 4 2	33 <b>700</b>	78 <b>2,842</b>	
<b>31-0000</b> 31-1000	Healthcare Support Occupations Nursing, Psychiatric, and Home Health Aides	<b>64,562</b> 37,678	<b>85,986</b> 49,849	<b>21,424</b> 12,171	33.2% 32.3%	<b>2,142</b> 1,217	337	2, <b>642</b> 1,554	
31-1000	Home Health Aides	12,707	18,829	6,122	48.2%	612	114	726	
	Nursing Aides, Orderlies, and Attendants	24,426	30,310	5,884	24.1%	588	219	807	
	Psychiatric Aides	545	710	165	30.3%	17	5	22	
31-2000	Occupational and Physical Therapist Assistants and Aides	1,514	1,968	454	30.0%	45	20	65	
31-2011	Occupational Therapist Assistants	165	197	32	19.4%	3	3	6	
31-2012	Occupational Therapist Aides	72	90	18	25.0%	2	1	3	
31-2021	Physical Therapist Assistants	500	687	187	37.4%	19	6	25	
31-2022	Physical Therapist Aides	777	994	217	27.9%	22	10	32	
31-9000	Other Healthcare Support Occupations	25,370	34,169	8,799	34.7%	880	343	1,223	

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	yment	10 Year	Change	Average	e Annual Ope	nings
SOC		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
31-9011	Massage Therapists	2,752	3,112	360	13.1%	36	31	67
31-9091	Dental Assistants	6,306	9,313	3,007	47.7%	301	110	411
31-9092	Medical Assistants	9,796	13,916	4,120	42.1%	412	122	534
31-9093	Medical Equipment Preparers	445	561	116	26.1%	12	6	18
31-9094	Medical Transcriptionists	1,868	2,105	237	12.7%	24	23	47
31-9095	Pharmacy Aides	486	514	28	5.8%	3	6	9
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	995	1,376	381	38.3%	38	12	50
31-9099	Healthcare Support Workers, All Other	2,722	3,272	550	20.2%	55	34	89
33-0000	Protective Service Occupations	57,156	65,746	8,590	15.0%	861	1,533	2,394
33-1000	First-Line Supervisors/Managers, Protective Service Workers	6,152	6,854	702	11.4%	70	179	249
33-1011	First-Line Supervisors/Managers of Correctional Officers	1,247	1,378	131	10.5%	13	34	47
33-1012	First-Line Supervisors/Managers of Police and Detectives	2,479	2,733	254	10.2%	25	78	103
33-2000	Fire Fighting and Prevention Workers	5,837	6,644	807	13.8%	81	210	291
33-2011	Fire Fighters	5,651	6,437	786	13.9%	79	206	285
33-3000	Law Enforcement Workers	26,261	30,225	3,964	15.1%	397	641	1,038
33-3011	Bailiffs	500	558	58	11.6%	6	11	17
33-3012	Correctional Officers and Jailers	9,677	11,058	1,381	14.3%	138	221	359
33-3021	Detectives and Criminal Investigators	4,413	5,493	1,080	24.5%	108	97	205
33-3041	Parking Enforcement Workers	100	131	31	31.0%	3	3	6
33-3051	Police and Sheriff's Patrol Officers	11,202	12,607	1,405	12.5%	141	300	441
33-9000	Other Protective Service Workers	18,906	22,023	3,117	16.5%	313	503	816
33-9011	Animal Control Workers	387	545	158	40.8%	16	8	24
33-9021	Private Detectives and Investigators	653	798	145	22.2%	15	13	28
33-9031	Gaming Surveillance Officers and Gaming Investigators	1,102	1,230	128	11.6%	13	22	35
33-9032	Security Guards	13,577	15,952	2,375	17.5%	238	276	514
33-9091	Crossing Guards	1,133	1,222	89	7.9%	9	33	42
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective	888	876	-12	-1.4%	0	66	66
33-9099	Protective Service Workers, All Other	1,166	1,400	234	20.1%	23	86	109
35-0000		251,578	293,013	41,435	16.5%	4,144	8,964	13,108
35-1000	Supervisors, Food Preparation and Serving Workers	19,803	22,619	2,816	14.2%	282	164	446
35-1011	Chefs and Head Cooks	2,823	3,083	260	9.2%	26	36	62
35-1012	First-Line Supervisors/Managers of Food Preparation and							
	Serving Workers	16,980	19,536	2,556	15.1%	256	128	384
35-2000	Cooks and Food Preparation Workers	67,348	77,612	10,264	15.2%	1,026	1,985	3,011
35-2011	Cooks, Fast Food	18,867	21,126	2,259	12.0%	226	511	737
35-2012	Cooks, Institution and Cafeteria	5,444	6,210	766	14.1%	77	148	225
35-2014		17,088	19,856	2,768	16.2%	277	463	740
35-2015	Cooks, Short Order	4,404	4,705	301	6.8%	30	119	149
35-2019	Cooks, All Other	321	337	16	5.0%	2	9	11

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	/ment	10 Year	Change	Averag	e Annual Ope	nings
SOC		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
35-2021	Food Preparation Workers	21,213	25,363	4,150	19.6%	415	736	1,151
35-3000	Food and Beverage Serving Workers	123,154	145,321	22,167	18.0%	2,217	4,755	6,972
35-3011	Bartenders	8,962	9,795	833	9.3%	83	326	409
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	50,545	62,481	11,936	23.6%	1,194	959	2,153
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee	10,983	12,564	1,581	14.4%	158	762	920
35-3031	Waiters and Waitresses	48,743	56,158	7,415	15.2%	742	2,648	3,390
35-3041	Food Servers, Nonrestaurant	3,921	4,323	402	10.3%	40	60	100
35-9000	Other Food Preparation and Serving Related Workers	41,273	47,461	6,188	15.0%	619	2,060	2,679
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	12,947	14,876	1,929	14.9%	193	542	735
35-9021	Dishwashers	15,113	17,317	2,204	14.6%	220	617	837
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop							
		13,111	15,148	2,037	15.5%	204	896	1,100
35-9099	Food Preparation and Serving Related Workers, All Other	102	120	18	17.6%	2	5	7
37-0000		447.540	445.554		00.00/	0.004	0.000	4 000
07.4000	Occupations	117,542	145,551	28,009	23.8%	2,801	2,002	4,803
37-1000	1 ,	44.070	17.505	2.240	22 40/	222	450	470
27 4044	Workers	14,379	17,595	3,216	22.4%	322	156	478
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	7,367	0 776	1,409	19.1%	141	100	250
27 1012	First-Line Supervisors/Managers of Landscaping, Lawn	7,367 7,012	8,776 8,819	1,409	25.8%	181	109 48	229
37-1012	· · · · · · · · · · · · · · · · · · ·	80,734	101,877	21,143	26.2%	2,114	1,550	3,664
37-2000	Janitors and Cleaners, Except Maids and Housekeeping	00,734	101,077	21,143	20.270	2,114	1,550	3,004
37-2011	Cleaners	51,764	67,261	15,497	29.9%	1,550	991	2,541
37-2012		26,501	31,345	4,844	18.3%	484	499	983
37-3000	, •	22,429	26,079	3,650	16.3%	365	296	661
37-3011	Landscaping and Groundskeeping Workers	21,561	25,095	3,534	16.4%	353	285	638
37-3012		377	429	52	13.8%	5	5	10
39-0000		85,448	102,611	17,163	20.1%	1,812	1,950	3,762
39-1000	Supervisors, Personal Care and Service Workers	8,564	9,665	1,101	12.9%	110	171	281
39-1011	Gaming Supervisors	2,622	3,032	410	15.6%	41	49	90
39-1012	Slot Key Persons	2,298	2,512	214	9.3%	21	43	64
39-1021	First-Line Supervisors/Managers of Personal Service Workers							
		3,644	4,121	477	13.1%	48	79	127
39-2000		3,657	4,287	630	17.2%	63	59	122
39-2011	Animal Trainers	273	362	89	32.6%	9	5	14
39-2021	Nonfarm Animal Caretakers	3,384	3,925	541	16.0%	54	55	109
39-3000	Entertainment Attendants and Related Workers	13,474	16,637	3,163	23.5%	316	542	858
39-3011	Gaming Dealers	3,423	4,186	763	22.3%	76	69	145

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	/ment	10 Year	Change	Average	e Annual Ope	nings
soc		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
39-3012	Gaming and Sports Book Writers and Runners	1,045	1,277	232	22.2%	23	21	44
39-3019	Gaming Service Workers, All Other	862	960	98	11.4%	10	17	27
39-3031	Ushers, Lobby Attendants, and Ticket Takers	1,636	2,136	500	30.6%	50	115	165
39-3091	Amusement and Recreation Attendants	4,981	5,995	1,014	20.4%	101	246	347
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	539	593	54	10.0%	5	27	32
39-3099	Entertainment Attendants and Related Workers, All Other	825	1,320	495	60.0%	50	41	91
39-4000	Funeral Service Workers	314	360	46	14.6%	5	8	13
39-4021	Funeral Attendants	269	309	40	14.9%	4	6	10
39-5000	Personal Appearance Workers	14,289	18,025	3,736	26.1%	374	173	547
39-5012		9,779	12,065	2,286	23.4%	229	117	346
39-5092	Manicurists and Pedicurists	1,881	2,668	787	41.8%	79	20	99
39-5094	Skin Care Specialists	1,088	1,501	413	38.0%	41	11	52
39-6000	Transportation, Tourism, and Lodging Attendants	8,789	8,283	-506	-5.8%	28	178	206
39-6011	Baggage Porters and Bellhops	1,432	1,312	-120	-8.4%	0	18	18
39-6012	Concierges	419	438	19	4.5%	2	5	7
39-6021	Tour Guides and Escorts	1,148	1,298	150	13.1%	15	46	61
39-6032	Transportation Attendants, Except Flight Attendants and	253	297	44	17.4%	4	4	8
39-9000	Other Personal Care and Service Workers	36,361	45,354	8,993	24.7%	917	819	1,736
39-9011	Child Care Workers	14,606	17,438	2,832	19.4%	283	420	703
39-9021	Personal and Home Care Aides	10,856	16,260	5,404	49.8%	540	184	724
39-9031	Fitness Trainers and Aerobics Instructors	1,524	1,695	171	11.2%	17	29	46
39-9032		7,247	7,930	683	9.4%	68	136	204
39-9041	Residential Advisors	779	854	75	9.6%	8	22	30
39-9099		1,349	1,177	-172	-12.8%	0	29	29
41-0000	• • • • • • • • • • • • • • • • • • •	305,472	356,948	51,476	16.9%	5,201	9,255	14,456
41-1000	•	43,522	50,427	6,905	15.9%	691	849	1,540
	First-Line Supervisors/Managers of Retail Sales Workers	33,799	40,003	6,204	18.4%	620	709	1,329
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers							
		9,723	10,424	701	7.2%	70	140	210
41-2000	Retail Sales Workers	167,545	199,425	31,880	19.0%	3,188	6,316	9,504
41-2011	Cashiers	68,896	76,174	7,278	10.6%	728	3,276	4,004
	Gaming Change Persons and Booth Cashiers	1,254	1,260	6	0.5%	1	60	61
41-2021	Counter and Rental Clerks	9,514	11,417	1,903	20.0%	190	363	553
41-2022	Parts Salespersons	4,515	4,641	126	2.8%	13	51	64
41-2031	Retail Salespersons	83,366	105,933	22,567	27.1%	2,257	2,567	4,824
41-3000	Sales Representatives, Services	23,884	27,537	3,653	15.3%	365	525	890
41-3011	Advertising Sales Agents	2,731	3,467	736	26.9%	74	48	122
41-3021	Insurance Sales Agents	7,541	8,706	1,165	15.4%	117	164	281

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	yment	10 Year	Change	Average Annual Openings		
soc		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
41-3031	Securities, Commodities, and Financial Services Sales Agents					_		
		7,236	7,726	490	6.8%	49	185	234
41-3041	Travel Agents	1,357	1,563	206	15.2%	21	10	31
41-3099	Sales Representatives, Services, All Other	5,019	6,075	1,056	21.0%	106	118	224
41-4000		39,079	46,282	7,203	18.4%	720	862	1,582
41-4011	Sales Representatives, Wholesale and Manufacturing,							
	Technical and Scientific Products	11,060	12,640	1,580	14.3%	158	244	402
41-4012	Sales Representatives, Wholesale and Manufacturing, Except							
	Technical and Scientific Products	28,019	33,642	5,623	20.1%	562	618	1,180
41-9000	Other Sales and Related Workers	31,442	33,277	1,835	5.8%	237	702	939
41-9011	Demonstrators and Product Promoters	2,094	2,630	536	25.6%	54	60	114
	Real Estate Sales Agents	9,169	9,847	678	7.4%	68	147	215
41-9031	Sales Engineers	873	874	1	0.1%	0	22	22
41-9041	Telemarketers	9,505	8,968	-537	-5.6%	0	334	334
41-9099	Sales and Related Workers, All Other	2,234	2,501	267	12.0%	27	20	47
43-0000		531,982	597,798	65,816	12.4%	7,397	11,517	18,914
43-1000	• • • • • • • • • • • • • • • • • • • •	30,432	32,954	2,522	8.3%	252	628	880
43-1011	First-Line Supervisors/Managers of Office and Administrative	00.400	00.0=4		2 22/			
	Support Workers	30,432	32,954	2,522	8.3%	252	628	880
43-2000	Communications Equipment Operators	5,096	4,732	-364	-7.1%	0	103	103
43-2011	Switchboard Operators, Including Answering Service	3,959	3,738	-221	-5.6%	0	83	83
43-3000	Financial Clerks	82,552	95,180	12,628	15.3%	1,264	1,595	2,859
43-3011	Bill and Account Collectors	17,659	20,479	2,820	16.0%	282	267	549
43-3021	Billing and Posting Clerks and Machine Operators	10,286	11,158	872	8.5%	87	131	218
43-3031	Bookkeeping, Accounting, and Auditing Clerks	36,758	43,533	6,775	18.4%	678	575	1,253
43-3041	Gaming Cage Workers	816	808	-8	-1.0%	0	22	22
43-3051	Payroll and Timekeeping Clerks	6,355	7,246	891	14.0%	89	161	250
43-3061	Procurement Clerks	1,181	1,231	50	4.2%	5	24	29
43-3071	Tellers	9,497	10,725	1,228	12.9%	123	415	538
43-4000	Information and Record Clerks	158,372	183,351	24,979	15.8%	2,961	4,050	7,011
43-4011	Brokerage Clerks	809	785	-24	-3.0%	0	26	26
43-4031	Court, Municipal, and License Clerks	2,366	2,520	154	6.5%	15	54	69
43-4051	Customer Service Representatives	70,730 2,013	91,814 2,021	21,084	29.8% 0.4%	2,108	1,970 35	4,078 36
43-4061	Eligibility Interviewers, Government Programs			8 2.552		1		
43-4071	File Clerks Hotel Motel and Report Dock Clerks	6,612 4,430	4,060 4,808	-2,552 378	-38.6% 8.5%	0	175	175 218
43-4081 43-4111	Hotel, Motel, and Resort Desk Clerks	4,430 4,967		378 974	19.6%	38 97	180 131	218
43-4111	Interviewers, Except Eligibility and Loan Library Assistants, Clerical	4,967 803	5,941 919	116	14.4%	12	25	37
43-4121	Loan Interviewers and Clerks	8,073	8,246	173	2.1%	17	140	157
43-4131	LUAN INTERVIEWERS AND CIERS	0,073	0,240	1/3	2.170	17	140	137

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	yment	10 Year	Change	Average	e Annual Ope	nings
soc		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
43-4141	New Accounts Clerks	890	760	-130	-14.6%	0	26	26
43-4151	Order Clerks	5,428	4,451	-977	-18.0%	0	114	114
43-4161	Human Resources Assistants, Except Payroll and							
	Timekeeping	5,386	6,987	1,601	29.7%	160	40	200
43-4171	Receptionists and Information Clerks	23,019	28,040	5,021	21.8%	502	563	1,065
43-4181	Reservation and Transportation Ticket Agents and Travel							
	Clerks	6,967	6,520	-447	-6.4%	0	153	153
43-4199	Information and Record Clerks, All Other	4,546	4,348	-198	-4.4%	0	73	73
43-5000	Material Recording, Scheduling, Dispatching, and Distributing	88,578	95,013	6,435	7.3%	683	2,152	2,835
43-5011	Cargo and Freight Agents	1,227	1,252	25	2.0%	3	33	36
43-5021	Couriers and Messengers	2,096	2,176	80	3.8%	8	57	65
43-5031	Police, Fire, and Ambulance Dispatchers	1,566	1,761	195	12.5%	20	40	60
43-5032	Dispatchers, Except Police, Fire, and Ambulance	3,805	3,980	175	4.6%	18	96	114
43-5041	Meter Readers, Utilities	1,532	1,412	-120	-7.8%	0	49	49
43-5051	Postal Service Clerks	1,160	1,217	57	4.9%	6	26	32
43-5052	Postal Service Mail Carriers	5,389	5,648	259	4.8%	26	158	184
43-5053	Postal Service Mail Sorters, Processors, and Processing							
	Machine Operators	3,114	2,959	-155	-5.0%	0	33	33
43-5061	Production, Planning, and Expediting Clerks	6,159	6,682	523	8.5%	52	168	220
43-5071	Shipping, Receiving, and Traffic Clerks	26,275	30,151	3,876	14.8%	388	630	1,018
43-5081	Stock Clerks and Order Fillers	35,152	36,793	1,641	4.7%	164	834	998
43-5111	Weighers, Measurers, Checkers, and Samplers,	1,103	982	-121	-11.0%	0	29	29
43-6000	Secretaries and Administrative Assistants	74,628	85,437	10,809	14.5%	1,081	1,188	2,269
43-6011	Executive Secretaries and Administrative Assistants	36,627	43,158	6,531	17.8%	653	583	1,236
43-6012	Legal Secretaries	5,339	6,568	1,229	23.0%	123	85	208
43-6013	Medical Secretaries	6,614	8,198	1,584	23.9%	158	105	263
43-6014	Secretaries, Except Legal, Medical, and Executive	26,048	27,513	1,465	5.6%	147	415	562
43-9000	Other Office and Administrative Support Workers	92,324	101,131	8,807	9.5%	1,156	1,801	2,957
43-9011	Computer Operators	4,146	3,287	-859	-20.7%	0	66	66
43-9021	Data Entry Keyers	7,869	7,411	-458	-5.8%	0	193	193
43-9022	Word Processors and Typists	4,689	4,214	-475	-10.1%	0	89	89
43-9031	Desktop Publishers	262	251	-11	-4.2%	0	5	5
43-9041	Insurance Claims and Policy Processing Clerks	2,090	2,168	78	3.7%	8	25	33
43-9051	Mail Clerks and Mail Machine Operators, Except Postal							
	Service	4,348	3,794	-554	-12.7%	0	115	115
43-9061	Office Clerks, General	63,101	74,207	11,106	17.6%	1,111	1,158	2,269
43-9071	Office Machine Operators, Except Computer	1,761	1,663	-98	-5.6%	0	58	58
43-9081	Proofreaders and Copy Markers	1,127	1,496	369	32.7%	37	23	60
43-9111	Statistical Assistants	186	191	5	2.7%	1	8	9

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	/ment	10 Year	Change	Average	e Annual Ope	nings
soc		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
43-9199	Office and Administrative Support Workers, All Other	2,745	2,449	-296	-10.8%	0	61	61
45-0000	Farming, Fishing, and Forestry Occupations	24,112	24,168	56	0.2%	18	584	602
45-1000	Supervisors, Farming, Fishing, and Forestry Workers	1,701	1,743	42	2.5%	4	32	36
45-1011	First-Line Supervisors/Managers of Farming, Fishing, and							
	Forestry Workers	914	923	9	1.0%	1	17	18
45-1012		787	820	33	4.2%	3	15	18
45-2000	· ·	22,115	22,100	-15	-0.1%	9	545	554
45-2011	· ·	300	305	5	1.7%	1	8	9
45-2041	Graders and Sorters, Agricultural Products	775	724	-51	-6.6%	0	11	11
45-2091	Agricultural Equipment Operators	1,676	1,710	34	2.0%	3	42	45
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	47.700	47.744	<b>5</b> 4	0.00/	0	4.45	4.45
45 0000	From Adam From Adam Adam I	17,798	17,744	-54	-0.3%	0	445	445
45-2093	Farmworkers, Farm and Ranch Animals	1,286	1,323	37	2.9%	4	32	36
45-2099	Agricultural Workers, All Other	264	276	12	4.5%	1	7	8
45-4000	Forest, Conservation, and Logging Workers	296	325	29	9.8%	4	7	11 4
45-4021	Fallers	88 250 020	109 <b>268,053</b>	21	23.9% <b>3.1%</b>	2	4 244	-
<b>47-0000</b> 47-1000	Construction and Extraction Occupations Supervisors, Construction and Extraction Workers	<b>259,920</b> 14,999	15,540	<b>8,133</b> 541	3.1%	<b>860</b> 54	<b>4,344</b> 210	<b>5,204</b> 264
47-1000	First-Line Supervisors/Managers of Construction Trades and	14,999	15,540	541 541	3.6%	54 54	210	264
47-1011	Construction Trades Workers	223,109	229,750	6,641	3.0%	699	3,611	4,310
47-2000	Boilermakers	234	275	41	17.5%	4	9	13
47-2011	Brickmasons and Blockmasons	8,636	8,571	-65	-0.8%	0	180	180
	Stonemasons	1,997	2,042	45	2.3%	5	42	47
47-2031	Carpenters	75,437	76,235	798	1.1%	80	1,021	1,101
47-2041	Carpet Installers	2,480	2,725	245	9.9%	25	36	61
47-2042	•	1,147	1,144	-3	-0.3%	0	17	17
47-2044	Tile and Marble Setters	2,767	3,072	305	11.0%	31	40	71
47-2051	Cement Masons and Concrete Finishers	10,082	10,395	313	3.1%	31	292	323
47-2053	Terrazzo Workers and Finishers	144	145	1	0.7%	0	4	4
47-2061	Construction Laborers	38,390	40,080	1,690	4.4%	169	289	458
47-2071	Paving, Surfacing, and Tamping Equipment Operators	1,888	1,985	97	5.1%	10	38	48
47-2073	Operating Engineers and Other Construction Equipment							
	Operators	14,438	15,565	1,127	7.8%	113	280	393
47-2081	Drywall and Ceiling Tile Installers	7,255	7,174	-81	-1.1%	0	100	100
47-2082	Tapers	4,402	4,336	-66	-1.5%	0	61	61
47-2111	Electricians	9,873	10,650	777	7.9%	78	254	332
47-2121	Glaziers	3,786	3,941	155	4.1%	16	64	80
47-2131	Insulation Workers, Floor, Ceiling, and Wall	348	350	2	0.6%	0	8	8
47-2132	Insulation Workers, Mechanical	156	156	0	0.0%	0	4	4

	Standard Occupation Classification (SOC) <sup>1</sup>		yment	10 Year	Change	e Average Annual Openings		
soc		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
47-2141	Painters, Construction and Maintenance	9,773	10,278	505	5.2%	51	174	225
47-2151	Pipelayers	2,739	2,938	199	7.3%	20	57	77
47-2152	Plumbers, Pipefitters, and Steamfitters	8,209	8,587	378	4.6%	38	169	207
47-2161	Plasterers and Stucco Masons	4,746	4,779	33	0.7%	3	111	114
47-2171	Reinforcing Iron and Rebar Workers	2,624	2,707	83	3.2%	8	66	74
47-2181	Roofers	4,285	4,390	105	2.5%	11	98	109
47-2211	Sheet Metal Workers	3,547	3,623	76	2.1%	8	86	94
47-2221	Structural Iron and Steel Workers	3,273	3,168	-105	-3.2%	0	106	106
47-3000		12,078	12,375	297	2.5%	39	306	345
47-3011								
	and Marble Setters	1,227	1,269	42	3.4%	4	31	35
47-3012	· · · · · · · · · · · · · · · · · · ·	5,275	5,435	160	3.0%	16	134	150
	HelpersElectricians	1,820	1,894	74	4.1%	7	46	53
47-3014	HelpersPainters, Paperhangers, Plasterers, and Stucco					_		
	Masons	819	748	-71	-8.7%	0	21	21
47-3015	HelpersPipelayers, Plumbers, Pipefitters, and Steamfitters							
		1,245	1,285	40	3.2%	4	32	36
47-3016	HelpersRoofers	429	408	-21	-4.9%	0	11	11
47-3019	Helpers, Construction Trades, All Other	1,263	1,336	73	5.8%	7	32	39
47-4000		8,376	8,862	486	5.8%	51	172	223
47-4011	Construction and Building Inspectors	1,953	2,277	324	16.6%	32	36	68
47-4021	Elevator Installers and Repairers	137	141	4	2.9%	0	4	4
47-4031	Fence Erectors	2,142	2,123	-19	-0.9%	0	43	43
47-4041		806	834	28	3.5%	3	17	20
47-4051	Highway Maintenance Workers	1,562	1,659	97	6.2%	10	29	39
47-4071	· · · · · · · · · · · · · · · · · · ·	431	440	9	2.1%	1	9	10
47-4099	•	996	1,021	25	2.5%	3	26	29
47-5000		1,358	1,526	168	12.4%	18	46	64
47-5021	Earth Drillers, Except Oil and Gas	377	442	65	17.2%	7	12	19
47-5031	Explosives Workers, Ordnance Handling Experts, and Blasters		00	0	4.4.00/	4	0	0
47.5044	Oction and Michael Mark Constant	54	62	8	14.8%	1	2	3
47-5041	Continuous Mining Machine Operators	347	394	47	13.5%	5	13	18
	Mine Cutting and Channeling Machine Operators	195	217	22	11.3%	2	7	9
47-5081	HelpersExtraction Workers	290	310	20	6.9%	2	9	11
<b>49-0000</b>	Installation, Maintenance, and Repair Occupations	105,420	118,617	13,197	12.5%	1,324	1,592	2,916
49-1000	Supervisors of Installation, Maintenance, and Repair Workers	7 404	0 170	740	10 10/	75	171	240
40 4044	First Line Cupervisors/Managers of Machanics Installers and	7,424 7,424	8,173	749 749	10.1% 10.1%	75 75	174 174	249 249
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and	7,424	8,173					
49-2000	Electrical and Electronic Equipment Mechanics, Installers, and	11,893	12,476	583	4.9%	61	234	295

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	/ment	10 Year	Change	Average	e Annual Ope	nings
SOC		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
49-2011	Computer, Automated Teller, and Office Machine Repairers							
		2,661	2,735	74	2.8%	7	31	38
49-2022	• •	0.000	0.700	400	0.70/	40	22	400
40.0004	Except Line Installers	3,629	3,762	133	3.7%	13	89	102
49-2091 49-2092	Avionics Technicians	461 512	561 492	100 -20	21.7% -3.9%	10 0	5 19	15 19
49-2092	,	312	492	-20	-3.9%	U	19	19
43-2033	Transportation Equipment	182	197	15	8.2%	2	4	6
49-2094	·	102	107	10	0.270		,	Ū
.0 200 .	Industrial Equipment	1,301	1,518	217	16.7%	22	44	66
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation,	1,001	1,010					
	and Relay	149	152	3	2.0%	0	5	5
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles							
		242	258	16	6.6%	2	8	10
49-2097	Electronic Home Entertainment Equipment Installers and							
	Repairers	1,904	1,931	27	1.4%	3	18	21
49-2098	Security and Fire Alarm Systems Installers	836	857	21	2.5%	2	11	13
49-3000	Vehicle and Mobile Equipment Mechanics, Installers	34,564	39,180	4,616	13.4%	462	685	1,147
49-3011	Aircraft Mechanics and Service Technicians	2,833	2,892	59	2.1%	6	29	35
49-3021	Automotive Body and Related Repairers	2,810	2,895	85	3.0%	9	67	76
49-3022	Automotive Glass Installers and Repairers	311	325	14	4.5%	1	11	12
49-3023	Automotive Service Technicians and Mechanics	15,547	17,495	1,948	12.5%	195	312	507
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	4,554	5,259	705	15.5%	71	99	170
49-3041	Farm Equipment Mechanics	614	647	33	5.4%	3	12	15
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	3,574	4,269	695	19.4%	70	70	140
49-3051 49-3052	Motorboat Mechanics	306 599	341 672	35 73	11.4% 12.2%	4 7	6 12	10 19
49-3052	Motorcycle Mechanics Outdoor Power Equipment and Other Small Engine Mechanics	599	072	73	12.270	,	12	19
49-3033	Odidooi Fower Equipment and Other Small Engine Mechanics	264	318	54	20.5%	5	5	10
49-3091	Bicycle Repairers	349	438	89	25.5%	9	7	16
49-3093	Tire Repairers and Changers	2,406	3,089	683	28.4%	68	48	116
49-9000	Other Installation, Maintenance, and Repair Occupations	51,539	58,788	7,249	14.1%	727	498	1,225
49-9011	Mechanical Door Repairers	206	266	60	29.1%	6	4	10
49-9012	Control and Valve Installers and Repairers, Except Mechanical	744	803	59	7.9%	6	13	19
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and	4,811	5,133	322	6.7%	32	84	116
49-9031	Home Appliance Repairers	1,157	1,231	74	6.4%	7	26	33
49-9041	Industrial Machinery Mechanics	3,019	3,597	578	19.1%	58	50	108
49-9042	Maintenance and Repair Workers, General	27,515	31,579	4,064	14.8%	406	68	474
49-9043	Maintenance Workers, Machinery	1,167	1,232	65	5.6%	7	19	26

;	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	/ment	10 Year	Change	Averag	e Annual Ope	nings
soc		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
49-9044	Millwrights	453	489	36	7.9%	4	6	10
49-9051	Electrical Power-Line Installers and Repairers	969	1,112	143	14.8%	14	31	45
49-9052	Telecommunications Line Installers and Repairers	680	795	115	16.9%	12	18	30
49-9061	Camera and Photographic Equipment Repairers	66	70	4	6.1%	0	2	2
49-9062	Medical Equipment Repairers	561	824	263	46.9%	26	16	42
49-9064	Watch Repairers	342	335	-7	-2.0%	0	10	10
49-9069	Precision Instrument and Equipment Repairers, All Other	527	617	90	17.1%	9	15	24
49-9091	Coin, Vending, and Amusement Machine Servicers and							
	Repairers	743	809	66	8.9%	7	21	28
49-9094	Locksmiths and Safe Repairers	133	163	30	22.6%	3	3	6
49-9098	HelpersInstallation, Maintenance, and Repair Workers	3,161	3,541	380	12.0%	38	74	112
49-9099	Installation, Maintenance, and Repair Workers, All Other	4,862	5,695	833	17.1%	83	31	114
51-0000	•	139,474	142,624	3,150	2.3%	926	2,820	3,746
51-1000	•	8,819	9,229	410	4.6%	41	148	189
51-1011	First-Line Supervisors/Managers of Production and Operating							
	Workers	8,819	9,229	410	4.6%	41	148	189
51-2000	Assemblers and Fabricators	32,744	32,089	-655	-2.0%	128	647	775
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems	1,161	1,442	281	24.2%	28	24	52
51-2021	Coil Winders, Tapers, and Finishers	365	258	-107	-29.3%	0	6	6
51-2022	Electrical and Electronic Equipment Assemblers	5,423	3,676	-1,747	-32.2%	0	92	92
51-2023	Electromechanical Equipment Assemblers	1,233	1,150	-83	-6.7%	0	21	21
51-2041	Structural Metal Fabricators and Fitters	2,183	2,229	46	2.1%	5	38	43
51-2091	Fiberglass Laminators and Fabricators	465	510	45	9.7%	5	10	15
51-2092	Team Assemblers	18,447	19,241	794	4.3%	79	383	462
51-2099	Assemblers and Fabricators, All Other	3,248	3,327	79	2.4%	8	68	76
51-3000	Food Processing Workers	10,520	12,370	1,850	17.6%	187	284	471
51-3011	Bakers	3,862	4,604	742	19.2%	74	82	156
51-3021	Butchers and Meat Cutters	2,373	2,593	220	9.3%	22	75	97
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	1,197	1,306	109	9.1%	11	38	49
51-3092		2,118	2,783	665	31.4%	67	54	121
51-3093	Food Cooking Machine Operators and Tenders	530	636	106	20.0%	11	21	32
51-4000	Metal Workers and Plastic Workers	21,628	22,330	702	3.2%	135	424	559
	Computer-Controlled Machine Tool Operators, Metal and	885	995	110	12.4%	11	11	22
51-4012	Numerical Tool and Process Control Programmers	245	255	10	4.1%	1	3	4
51-4021	Extruding and Drawing Machine Setters, Operators, and			_			_	
	Tenders, Metal and Plastic	546	512	-34	-6.2%	0	15	15
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and					_	_	_
	Plastic	245	189	-56	-22.9%	0	8	8

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	ment	10 Year	Change	Average	e Annual Ope	nings
soc		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and	<u> </u>					<u> </u>	
	Plastic	379	375	-4	-1.1%	0	8	8
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and	2,880	2,681	-199	-6.9%	0	69	69
51-4032	Drilling and Boring Machine Tool Setters, Operators, and	445	406	-39	-8.8%	0	9	9
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool	688	703	15	2.2%	2	7	9
51-4034	, , ,							
	Tenders, Metal and Plastic	595	557	-38	-6.4%	0	12	12
51-4035	Milling and Planing Machine Setters, Operators, and Tenders,					_	_	
	Metal and Plastic	287	249	-38	-13.2%	0	3	3
51-4041	Machinists	3,757	4,132	375	10.0%	38	58	96
51-4051	Metal-Refining Furnace Operators and Tenders	242	243	1	0.4%	0	4	4
	Pourers and Casters, Metal	117	86	-31	-26.5%	0	2	2
51-4061	Model Makers, Metal and Plastic	69	67	-2	-2.9%	0	2	2
51-4062	· · · · · · · · · · · · · · · · · · ·	68	61	-7	-10.3%	0	2	2
51-4071	Foundry Mold and Coremakers	256	200	-56	-21.9%	0	6	6
51-4072	Molding, Coremaking, and Casting Machine Setters,	750	COF	50	7 70/	0	40	40
E4 4004	Operators, and Tenders, Metal and Plastic	753	695	-58	-7.7%	0	18	18
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal	557	616	59	10.6%	6	11	17
51-4111	and Plastic Tool and Die Makers	437	457	20	4.6%	6 2	6	8
51-4111	Welders, Cutters, Solderers, and Brazers	6,561	7,261	700	10.7%	70	139	209
51-4121		0,501	7,201	700	10.7 /6	70	139	209
31-4122	and Tenders	603	661	58	9.6%	6	13	19
51-4191	Heat Treating Equipment Setters, Operators, and Tenders,	003	001	30	3.070	O	10	13
01 4101	Metal and Plastic	144	127	-17	-11.8%	0	3	3
51-4193	Plating and Coating Machine Setters, Operators, and Tenders,	331	334	3	0.9%	0	10	10
	Tool Grinders, Filers, and Sharpeners	320	317	-3	-0.9%	0	6	6
51-4199	Metal Workers and Plastic Workers, All Other	172	112	-60	-34.9%	0	3	3
51-5000	Printing Workers	4,271	3,661	-610	-14.3%	0	73	73
51-5011	Bindery Workers	711	506	-205	-28.8%	0	10	10
51-5022	Prepress Technicians and Workers	948	675	-273	-28.8%	0	15	15
51-5023	Printing Machine Operators	1,854	1,785	-69	-3.7%	0	41	41
51-6000	Textile, Apparel, and Furnishings Workers	12,387	13,534	1,147	9.3%	151	222	373
51-6011	Laundry and Dry-Cleaning Workers	5,543	6,341	798	14.4%	80	124	204
51-6021	Pressers, Textile, Garment, and Related Materials	1,522	1,519	-3	-0.2%	0	11	11
51-6031	Sewing Machine Operators	1,869	2,018	149	8.0%	15	18	33
51-6041	Shoe and Leather Workers and Repairers	324	431	107	33.0%	11	7	18
51-6052	Tailors, Dressmakers, and Custom Sewers	579	664	85	14.7%	9	10	19
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	50	40	-10	-20.0%	0	2	2

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	ment	10 Year	Change	Average	e Annual Ope	nings
SOC		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
51-6092	Fabric and Apparel Patternmakers	142	151	9	6.3%	1	3	4
51-6093	Upholsterers	538	552	14	2.6%	1	8	9
51-6099	Textile, Apparel, and Furnishings Workers, All Other	1,198	1,540	342	28.5%	34	30	64
51-7000	Woodworkers	5,515	5,974	459	8.3%	49	137	186
51-7011	Cabinetmakers and Bench Carpenters	2,128	2,295	167	7.8%	17	63	80
51-7021	Furniture Finishers	689	715	26	3.8%	3	12	15
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	1,013	1,097	84	8.3%	8	20	28
51-7042								
	Except Sawing	1,426	1,626	200	14.0%	20	36	56
51-7099	Woodworkers, All Other	186	197	11	5.9%	1	4	5
51-8000	Plant and System Operators	2,797	3,221	424	15.2%	47	66	113
51-8012	·	90	95	5	5.6%	1	3	4
51-8013	·	422	471	49	11.6%	5	15	20
51-8021	Stationary Engineers and Boiler Operators	484	577	93	19.2%	9	8	17
51-8031	Water and Liquid Waste Treatment Plant and System	1,109	1,361	252	22.7%	25	19	44
51-8091	Chemical Plant and System Operators	109	113	4	3.7%	0	3	3
51-8093	Petroleum Pump System Operators, Refinery Operators, and							
	Gaugers	198	155	-43	-21.7%	0	6	6
51-8099	Plant and System Operators, All Other	181	199	18	9.9%	2	5	7
51-9000	· · · · · · · · · · · · · · · · · · ·	40,793	40,216	-577	-1.4%	188	820	1,008
51-9011	• • •	93	77	-16	-17.2%	0	2	2
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine							
	Setters, Operators, and Tenders	811	987	176	21.7%	18	19	37
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators,							
	and Tenders	620	587	-33	-5.3%	0	10	10
51-9022	Grinding and Polishing Workers, Hand	735	726	-9	-1.2%	0	12	12
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	1,224	1,307	83	6.8%	8	20	28
51-9031	Cutters and Trimmers, Hand	219	222	3	1.4%	0	3	3
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders							
		460	466	6	1.3%	1	7	8
51-9041	Extruding, Forming, Pressing, and Compacting Machine							
	Setters, Operators, and Tenders	949	1,072	123	13.0%	12	17	29
51-9051	, , , , ,	473	493	20	4.2%	2	13	15
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	7,054	6,957	-97	-1.4%	0	105	105
51-9071	Jewelers and Precious Stone and Metal Workers	544	543	-1	-0.2%	0	9	9
51-9081	Dental Laboratory Technicians	707	795	88	12.4%	9	13	22
51-9083	Ophthalmic Laboratory Technicians	1,096	1,457	361	32.9%	36	21	57
51-9111	Packaging and Filling Machine Operators and Tenders	3,843	4,034	191	5.0%	19	71	90

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	ment	10 Year	Change	Average	e Annual Ope	nings
soc		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
51-9121	Coating, Painting, and Spraying Machine Setters, Operators,					_		,
	and Tenders	1,407	1,325	-82	-5.8%	0	28	28
51-9122	Painters, Transportation Equipment	1,011	1,058	47	4.6%	5	20	25
51-9123	Painting, Coating, and Decorating Workers	624	765	141	22.6%	14	12	26
51-9131	Photographic Process Workers	537	347	-190	-35.4%	0	19	19
51-9132	Photographic Processing Machine Operators	1,288	741	-547	-42.5%	0	45	45
51-9141	Semiconductor Processors	4,368	2,897	-1,471	-33.7%	0	74	74
51-9191		202	202	0	0.0%	0	5	5
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators	00	91	7	-7.1%	0	2	2
E1 0102	and Tenders	98 171	223	-7 52	30.4%	0 5	3 4	3
51-9193 51-9194	Cooling and Freezing Equipment Operators and Tenders Etchers and Engravers	130	122	-8	-6.2%	0	2	2
51-9194	Molders, Shapers, and Casters, Except Metal and Plastic	1,443	1,577	134	9.3%	13	32	45
51-9196	Paper Goods Machine Setters, Operators, and Tenders	933	1,013	80	8.6%	8	23	31
51-9198	HelpersProduction Workers	7,501	7,788	287	3.8%	29	184	213
51-9199	Production Workers, All Other	2,030	2,092	62	3.1%	6	42	48
53-0000	Transportation and Material Moving Occupations	177,670	196,244	18,574	10.5%	1,983	4,133	6,116
53-1000		6,455	7,628	1,173	18.2%	117	132	249
53-1011	Aircraft Cargo Handling Supervisors	177	204	27	15.3%	3	4	7
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and							
	Material Movers, Hand	3,025	3,569	544	18.0%	54	62	116
53-1031	First-Line Supervisors/Managers of Transportation and							
	Material-Moving Machine and Vehicle Operators	3,253	3,855	602	18.5%	60	66	126
53-2000	Air Transportation Workers	5,133	5,160	27	0.5%	39	149	188
53-2011	Airline Pilots, Copilots, and Flight Engineers	3,765	3,401	-364	-9.7%	0	110	110
53-2012		814	1,087	273	33.5%	27	24	51
53-2021	Air Traffic Controllers	379	466	87	23.0%	9	10	19
	Airfield Operations Specialists	175	206	31	17.7%	3	5	8
53-3000	•	72,465	83,943	11,478	15.8%	1,159	1,218	2,377
53-3011	Ambulance Drivers and Attendants, Except Emergency					_		
<b>T</b> O 0004	Medical Technicians	229	315	86	37.6%	9	3	12
53-3021	Bus Drivers, Transit and Intercity	3,321	3,888	567	17.1%	57	44	101
	Bus Drivers, School	6,482	7,985	1,503	23.2%	150	85	235
53-3031	Driver/Sales Workers	8,720	8,611	-109 5.637	-1.3%	0	155	155
53-3032	Truck Drivers, Heavy and Tractor-Trailer	28,113	33,740	5,627	20.0%	563	499	1,062
53-3033	Truck Drivers, Light or Delivery Services	20,367	23,340	2,973	14.6%	297	361	658 105
53-3041	Taxi Drivers and Chauffeurs	3,643 1,590	4,220	577 254	15.8% 16.0%	58 25	47 25	105 50
53-3099 53-6000	Motor Vehicle Operators, All Other Other Transportation Workers	6,532	1,844 7,241	254 709	10.0%	25 71	25 203	274
33-0000	Other Transportation Workers	0,002	7,241	709	10.8/0	7.1	203	214

	Standard Occupation Classification (SOC) <sup>1</sup>	Employ	yment	10 Year	Change	Average	e Annual Ope	nings
soc		2006	2016			Due to	Due to	
Code	SOC Title	Estimated	Projected	Number	Percent	Growth	Separations	Total <sup>2</sup>
53-6021	Parking Lot Attendants	3,399	3,542	143	4.2%	14	93	107
53-6031	Service Station Attendants	1,670	1,914	244	14.6%	24	77	101
53-6051	Transportation Inspectors	428	510	82	19.2%	8	14	22
53-6099	Transportation Workers, All Other	890	1,115	225	25.3%	23	16	39
53-7000	Material Moving Workers	84,924	89,873	4,949	5.8%	569	2,357	2,926
53-7011	Conveyor Operators and Tenders	462	491	29	6.3%	3	8	11
53-7021	Crane and Tower Operators	494	510	16	3.2%	2	9	11
53-7032	Excavating and Loading Machine and Dragline Operators	2,548	2,648	100	3.9%	10	40	50
53-7051	Industrial Truck and Tractor Operators	6,648	7,383	735	11.1%	74	168	242
53-7061	Cleaners of Vehicles and Equipment	7,127	7,732	605	8.5%	61	272	333
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	50,269	53,958	3,689	7.3%	369	1,609	1,978
53-7063	Machine Feeders and Offbearers	986	891	-95	-9.6%	0	18	18
53-7064	Packers and Packagers, Hand	13,878	13,234	-644	-4.6%	0	169	169
53-7071	Gas Compressor and Gas Pumping Station Operators	59	62	3	5.1%	0	2	2
53-7081	Refuse and Recyclable Material Collectors	1,853	2,210	357	19.3%	36	50	86
53-7121	Tank Car, Truck, and Ship Loaders	227	329	102	44.9%	10	4	14
53-7199	Material Moving Workers, All Other	243	267	24	9.9%	2	4	6

<sup>&</sup>lt;sup>1</sup> For more information on the Standard Occupational Classification (SOC) system, go to:

www.bls.gov/soc/socguide.htm

For Occupational Dictionary, see: <a href="http://www.bls.gov/oes/current/oes\_stru.htm">http://www.bls.gov/oes/current/oes\_stru.htm</a>

Some Occupations suppressed due to confidentiality or base employment less than 50.

Headings in bold font are the major occupational groups of the Standard Occupational Classification (SOC) system. Major occupational groups of the SOC are a composite of all individual occupations listed below the major group heading. Occupation codes ending in 000 (e.g. 11-1000, 11-2000, 11-3000, etc) are a summation of all the occupations listed below them.

The projections presented should be viewed as indicators of relative magnitude and probable direction rather than as forecasts of absolute occupational demand. Furthermore, the occupational forecasts are only measures of expected employment and demand for labor and indicate little about future labor supply.

It is therefore recommended that these data be used with other sources of occupational information. See Notes worksheet for additional information on methodology.

Prepared by Arizona Dept of Commerce, Research Administration in cooperation with the U.S. Dept of Labor, Bureau of Labor Statistics, July 2008.

For more information on occupational projections, visit: http://stats.bls.gov/emp/optd/home.htm

<sup>&</sup>lt;sup>2</sup> Total average annual openings are the sum of openings from growth plus openings from separations. Separations are vacancies caused by workers leaving the labor market or changing occupations. Thus an occupation that is not growing or is in decline could still have openings due to separations.

## Methodology

Before using the data in this report, readers should understand this methodology and note its limitations. The projections presented should be viewed as indicators of relative magnitude and probable direction rather than as forecasts of absolute occupational demand. Furthermore, the occupational forecasts are only measures of expected employment and demand for labor and indicate little about future labor supply. It is therefore recommended that these data be used with other sources of occupational information.

The total occupational employment of the forecast will be greater than the total nonfarm employment estimated by the Current Employment Statistics (CES) program and Occupational Employment Survey (OES) program for the following reasons. First, self employed, unpaid family workers, and agriculture workers are included in the projections, but not in CES and OES. Next, some industries are not included in the OES data because of low survey response rate and a base employment level that is too small to make any statistically significant estimates.

Employment projections provided in this publication were developed in cooperation with and using techniques based on those developed by the U.S Department of Labor's Bureau of Labor Statistics. This methodology is comprised of five basic steps:

- 1) Industry employment data is compiled from CES and unemployment insurance tax records.
- 2) A fraction of the industry employment is assumed to be self employed or unpaid family workers. The fraction is determined from national surveys and is added to the state's industry employment data.
- 3) Staffing patterns from state and national data are used to divide each industry's total employment into the different occupations for that industry.
- 4) Each industry's total employment is calculated during the forecast period according to the short term industry projections for the same time period that were produced by DES Research Administration. The short term industry projections are available online at:

  http://www.workforce.az.gov/?PAGEID=67&SUBID=174
- 5) Total employment in any occupation is not only calculated by changes in the total industry employment, but also by changes in share of that occupation's employment in each industry. The change in the share of total industry employment of any occupation is known as the occupational change factor. When the occupational change factor is determined for each occupation in every industry, the occupational forecasts are finished.

To avoid the possible disclosure of confidential employer information, employment data have been suppressed if: less than three firms reported a single occupation; one firm reported more than 50 percent of the occupational estimate; or two firms combined reported more than 75 percent of the occupational estimate. In certain cases, releases may have been obtained from large employers to waive the confidentiality criteria.

	Occupational Education and Trai	ning	Requirements
S	Standard Occupation Classification (SOC)*		Training Requirements
Code	Occupation Title	Code	Training Description
11-1011	Chief Executives	4	Bachelor's or higher degree, plus
11-1021	General and Operations Managers	4	work experience Bachelor's or higher degree, plus work experience
11-1031	Legislators	4	Bachelor's or higher degree, plus work experience
11-2011	Advertising and Promotions Managers	4	Bachelor's or higher degree, plus work experience
11-2021	Marketing Managers	4	Bachelor's or higher degree, plus work experience
11-2022	Sales Managers	4	Bachelor's or higher degree, plus work experience
11-2031	Public Relations Managers	4	Bachelor's or higher degree, plus work experience
11-3011	Administrative Services Managers	4	Bachelor's or higher degree, plus work experience
11-3021	, , , , , , , , , , , , , , , , , , ,	4	Bachelor's or higher degree, plus work experience
11-3031	Financial Managers	4	Bachelor's or higher degree, plus work experience
11-3041	Compensation and Benefits Managers	4	Bachelor's or higher degree, plus work experience
11-3042	Training and Development Managers	4	Bachelor's or higher degree, plus work experience
11-3049	Human Resources Managers, All Other	4	Bachelor's or higher degree, plus work experience
11-3051	Industrial Production Managers	8	Work experience in a related occupation
11-3061	Purchasing Managers	4	Bachelor's or higher degree, plus work experience
11-3071	Transportation, Storage, and Distribution Managers	8	Work experience in a related occupation
	Farm, Ranch, and Other Agricultural Managers  Construction Managers	4 5	Bachelor's or higher degree, plus work experience Bachelor's degree
11-9031	Education Administrators, Preschool and Child Care Center/Program	4	Bachelor's or higher degree, plus work experience
11-9032	Education Administrators, Elementary and Secondary School	4	Bachelor's or higher degree, plus work experience
11-9033	Education Administrators, Postsecondary	4	Bachelor's or higher degree, plus work experience
11-9039	Education Administrators, All Other	4	Bachelor's or higher degree, plus work experience
11-9041	Engineering Managers	4	Bachelor's or higher degree, plus work experience
11-9051	Food Service Managers	8	Work experience in a related occupation
11-9061 11-9071	Funeral Directors Gaming Managers	6 8	Associate degree Work experience in a related
11-9081	Lodging Managers	8	occupation  Work experience in a related occupation
11-9111	Medical and Health Services Managers	4	Bachelor's or higher degree, plus work experience

Bachelor's or higher degree, plus work experience in a related occupation	Natural Sciences Managers   A Bachelor's or higher degree, plus work experience in a related cocupation	S	Standard Occupation Classification (SOC)*		Training Requirements
North experience   Work experience   Work experience   North experience   Work experience   North experien	North experience   North exper	Code	Occupation Title	Code	Training Description
Postmasters and Mail Superintendents	Postmasters and Mail Superintendents	11-9121	Natural Sciences Managers	4	
1-9141   Property, Real Estate, and Community Association Managers   5 Bachelor's degree	occupation 11-9141 Property, Real Estate, and Community Association Managers 11-9151 Social and Community Service Managers 11-9199 Managers, All Other 13-1011 Agents and Business Managers of Artists, Performers, and Athletes 13-1021 Purchasing Agents and Buyers, Farm Products 13-1022 Wholesale and Retail Buyers, Except Farm Products 13-1032 Purchasing Agents, Except Wholesale, Retail, and Farm Products 13-1043 Purchasing Agents, Except Wholesale, Retail, and Farm Products 13-1053 Purchasing Agents, Except Wholesale, Retail, and Farm Products 13-1054 Claims Adjusters, Examiners, and Investigators 13-1055 Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation 13-1051 Cost Estimators 13-1061 Emergency Management Specialists 13-1071 Employment, Recruitment, and Placement Specialists 13-1072 Compensation, Benefits, and Job Analysis Specialists 13-1073 Training and Development Specialists 13-1074 Luman Resources, Training, and Labor Relations 13-1075 Especialists, All Other 13-1071 Management Analysts 13-1071 Management Analysts 13-1071 Meeting and Convention Planners 13-1071 Management Analysts 13-1071 Management Analysts 13-1072 Appraisers and Assessors of Real Estate 13-1073 Purchasing and Development Specialists, All Other 13-2071 Accountants and Auditors 13-1073 Faminacial Analysts 13-1074 Compaisers and Assessors of Real Estate 13-2075 Postier Agenta Agent	44.0404	Protocolor of IM-10 or inter-land	0	•
11-9141   Property, Real Estate, and Community Association Managers   5   Bachelor's degree     11-9151   Social and Community Service Managers   5   Bachelor's degree   Work experience in a related occupation     13-1011   Agents and Business Managers of Artists, Performers, and Athletes   8   Work experience work experience work experience work experience work experience in a related occupation     13-1021   Purchasing Agents and Buyers, Except Farm Products   8   Work experience in a related occupation     13-1022   Wholesale and Retail Buyers, Except Farm Products   8   Work experience in a related occupation     13-1023   Purchasing Agents, Except Wholesale, Retail, and Farm Products   Compliance Officers, Except Agriculture, Construction, Products   Long-term on-the-job training     13-1031   Claims Adjusters, Examiners, and Investigators   9   Long-term on-the-job training     13-1041   Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation     13-1051   Cost Estimators   8   Work experience in a related occupation     13-1061   Emergency Management Specialists   8   Work experience in a related occupation     13-1071   Employment, Recruitment, and Placement Specialists   5   Bachelor's degree     13-1072   Compensation, Benefits, and Job Analysis Specialists   5   Bachelor's degree     13-1073   Training and Development Specialists   5   Bachelor's degree     13-1079   Human Resources, Training, and Labor Relations   5   Bachelor's degree     13-1111   Meeting and Convention Planners   5   Bachelor's degree     13-1121   Meeting and Convention Planners   5   Bachelor's degree     13-1221   Accountants and Auditors   5   Bachelor's degree     13-2221   Accountants and Auditors   5   Bachelor's degree     13-2221   Accountants and Auditors   5   Bachelor's degree     13-2223   Bugdet Analysts   5   Bachelor's degree     13-2224   Credit Analysts   5   Bachelor's degree     13-2225   Financial Analysts   5   Bachelor's degree     13-2226   Financial Analysts   5   Ba	11-9141   Property, Real Estate, and Community Association Managers   5   Bachelor's degree	11-9131	Postmasters and Mail Superintendents	8	
1-9151   Social and Community Service Managers   5   Bachelor's degree   Work experience in a related occupation   8   Athletes   Athletes   Athletes   Work experience   Athletes   Cocupation	11-9151   Social and Community Service Managers   8	11-9141	Property Real Estate and Community Association Managers	5	
11-9199   Managers, All Other	11-9199   Managers, All Other		Troporty, Real Ediate, and Community Accordation Managero	Ū	Dadricior d'adgree
13-1011   Agents and Business Managers of Artists, Performers, and Athletes   Athletes   Work experience   Work experience   Work experience   Work experience   in a related occupation     13-1022   Wholesale and Retail Buyers, Except Farm Products   Work experience in a related occupation     13-1023   Purchasing Agents, Except Wholesale, Retail, and Farm   Products   Work experience in a related occupation     13-1023   Purchasing Agents, Except Wholesale, Retail, and Farm   Products	Agents and Business Managers of Artists, Performers, and Athletes	11-9151	Social and Community Service Managers	5	Bachelor's degree
Agents and Business Managers of Artists, Performers, and Athletes	Agents and Business Managers of Artists, Performers, and Athletes   Work experience   marelated occupation	11-9199	Managers, All Other	8	•
Athletes   Athletes   Work experience	Athletes work experience 13-1021 Purchasing Agents and Buyers, Farm Products cocupation 13-1022 Wholesale and Retail Buyers, Except Farm Products cocupation 13-1023 Purchasing Agents, Except Wholesale, Retail, and Farm Products work experience in a related occupation 13-1023 Purchasing Agents, Except Wholesale, Retail, and Farm Products 13-1031 Claims Adjusters, Examiners, and Investigators Diagrams occupation 13-1032 Insurance Appraisers, Auto Damage Diagrams occupation 13-1031 Claims Adjusters, Examiners, and Investigators Diagrams occupation 13-1041 Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation 13-1051 Cost Estimators Work experience in a related occupation 13-1051 Emergency Management Specialists 13-1051 Emergency Management Specialists 13-1071 Employment, Recruitment, and Placement Specialists 13-1072 Compensation, Benefits, and Job Analysis Specialists 13-1073 Training and Development Specialists 13-1073 Training and Development Specialists 13-1079 Human Resources, Training, and Labor Relations 13-1081 Logisticians 13-1111 Management Analysts 13-1111 Management Analysts 13-1121 Meeting and Convention Planners 13-1121 Meeting and Convention Planners 13-121 Meeting and Convention Planners 13-1221 Accountants and Auditors 13-2221 Appraisers and Assessors of Real Estate 13-2221 Appraisers and Assessors of Real Estate 13-2222 Prostonal Financial Advisors 13-2223 Eachelor's degree 13-2224 Inancial Examiners 13-2225 Prostonal Financial Advisors 13-2225 Prostonal Financial Advisors 13-2225 Prostonal Financial Advisors 13-2226 Prostonal Financial Advisors 13-2226 Prostonal Financial Advisors 13-2226 Prostonal Financial Advisors 13-2226 Prostonal Financial Faminers 13-2227 Loan Officers 13-2228 Tax Preparers 13-2229 Loan Officers 13-2229 Financial Specialists, All Other 13-2229 Financial Specialists, All Other 14-2229 Financial Specialists, All Other 15-1229 Computer Systems Analysts 15-1229 Financial Specialists, Specialists 15-1290 Computer Systems Analysts 15-1290 C	40 4044	A south and Division on Management Autists Desferos and	4	
13-1021 Purchasing Agents and Buyers, Farm Products	13-1021 Purchasing Agents and Buyers, Farm Products	13-1011	· ·	4	
13-1022   Wholesale and Retail Buyers, Except Farm Products   8   Work experience in a related occupation	13-1022 Wholesale and Retail Buyers, Except Farm Products	13-1021		8	
3-1022   Wholesale and Retail Buyers, Except Farm Products   8   Work experience in a related occupation   3-1023   Purchasing Agents, Except Wholesale, Retail, and Farm Products   8   Work experience in a related occupation   3-1031   Claims Adjusters, Examiners, and Investigators   9   Long-term on-the-job training   3-1032   Insurance Appraisers, Auto Damage   9   Long-term on-the-job training   3-1032   Insurance Appraisers, Auto Damage   9   Long-term on-the-job training   3-1041   Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation   8   Work experience in a related occupation   3-1051   Cost Estimators   8   Work experience in a related occupation   3-1061   Emergency Management Specialists   8   Work experience in a related occupation   3-1071   Employment, Recruitment, and Placement Specialists   5   Bachelor's degree   3-1072   Training and Development Specialists   5   Bachelor's degree   3-1073   Training and Development Specialists   5   Bachelor's degree   3-1073   Training and Development Specialists   5   Bachelor's degree   3-1111   Management Analysts   5   Bachelor's degree   3-1112   Meeting and Convention Planners   5   Bachelor's degree   3-1112   Accountants and Auditors   5   Bachelor's degree   3-1112   Accountants and Auditors   5   Bachelor's degree   3-1112   Accountants and Auditors   5   Bachelor's degree   3-1112   3-1112   Machement Analysts   5   Bachelor's degree   3-1112   3-1112   Machement Analysts   5   Bachelor's degree   3-1112   3-1112   Accountants and Auditors   5   Bachelor's degree   3-1112   3-1112   3-1112   3-1112   3-1112   3-1112   3-1112   3-1112   3-111	13-1022 Wholesale and Retail Buyers, Except Farm Products 3-1023 Purchasing Agents, Except Wholesale, Retail, and Farm Products 3-1031 Claims Adjusters, Examiners, and Investigators 3-1032 Insurance Appraisers, Auto Damage 3-1031 Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation 3-1051 Cost Estimators 3-1051 Emergency Management Specialists 3-1071 Employment, Recruitment, and Placement Specialists 3-1072 Compensation, Benefits, and Job Analysis Specialists 3-1073 Training and Development Specialists 3-1073 Training and Development Specialists 3-1079 Human Resources, Training, and Labor Relations 3-1081 Logisticians 3-1091 Meeting and Convention Planners 3-1091 Meeting and Convention Planners 3-11121 Meeting and Convention Planners 3-12-2021 Appraisers and Assessors of Real Estate 3-2-2021 Appraisers and Assessors of Real Estate 3-2-2031 Budget Analysts 5 Bachelor's degree 5 Bachelor's degree 6 Bachelor's degree 7 Postsecondary vocational training 3-2-2031 Budget Analysts 5 Bachelor's degree 8 Bachelor's degree 9 Bachelor's degr	.0 .02.	Training rigorite and Dayore, Family readile	Ū	
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Code         Occupation Title         Code         Training Description           15-1071         Network and Computer Systems Administrators         5         Bachelor's degree           15-1081         Network Systems and Data Communications Analysts         5         Bachelor's degree           15-2011         Actuaries         4         Associate degree           15-2012         Mathematicians         2         Doctoral degree           15-2021         Operations Research Analysts         3         Master's degree           15-2031         Operations Research Analysts         3         Master's degree           15-2041         Statisticians         3         Master's degree           15-2099         Mathematical Technicians         3         Master's degree           15-2099         Mathematical Science Occupations, All Other         3         Master's degree           17-1011         Architects         5         Bachelor's degree           17-1012         Landscape Architects         5         Bachelor's degree           17-1012         Cardoscape Architects         5         Bachelor's degree           17-1012         Landscape Architects         5         Bachelor's degree           17-1012         Australiance         5 <t< th=""><th>S</th><th>standard Occupation Classification (SOC)*</th><th></th><th>Training Requirements</th></t<>	S	standard Occupation Classification (SOC)*		Training Requirements
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	19-1031	Conservation Scientists	5	Bachelor's degree

S	standard Occupation Classification (SOC)*		Training Requirements
Code	Occupation Title	Code	Training Description
19-1032	Foresters	5	Bachelor's degree
	Epidemiologists	3	Master's degree
	Medical Scientists, Except Epidemiologists	2	Doctoral degree
	Life Scientists, All Other	5	Bachelor's degree
	Astronomers	2	Doctoral degree
	Physicists	2	Doctoral degree
	Atmospheric and Space Scientists	5	Bachelor's degree
19-2031	Chemists	5	Bachelor's degree
	Materials Scientists	5	Bachelor's degree
19-2041	Environmental Scientists and Specialists, Including Health	3	Master's degree
19-2042	Geoscientists, Except Hydrologists and Geographers	3	Master's degree
	Hydrologists	3	Master's degree
	Physical Scientists, All Other	5	Bachelor's degree
	Economists	3	Master's degree
19-3021	Market Research Analysts	5	Bachelor's degree
	Survey Researchers	5	Bachelor's degree
19-3031	Clinical, Counseling, and School Psychologists	2	Doctoral degree
	Industrial-Organizational Psychologists	3	Master's degree
	Psychologists, All Other	3	Master's degree
19-3041	Sociologists	3	Master's degree
	Urban and Regional Planners	3	Master's degree
19-3091	Anthropologists and Archeologists	3	Master's degree
19-3092	Geographers	3	Master's degree
	Historians	3	Master's degree
19-3094	Political Scientists	3	Master's degree
19-3099	Social Scientists and Related Workers, All Other	5 6	Master's degree Associate degree
19-4011	Agricultural and Food Science Technicians Biological Technicians	6	Associate degree
19-4021	Chemical Technicians	6	Associate degree
19-4041	Geological and Petroleum Technicians	6	Associate degree
19-4051	Nuclear Technicians	6	Associate degree
19-4061	Social Science Research Assistants	6	Associate degree
19-4091	Environmental Science and Protection Technicians, Including	6	Associate degree
19-4092	Health Forensic Science Technicians	6	Associate degree
	Forest and Conservation Technicians	6	Associate degree
	Life, Physical, and Social Science Technicians, All Other	6	Associate degree
	Substance Abuse and Behavioral Disorder Counselors	3	Master's degree
	Educational, Vocational, and School Counselors	3	Master's degree
	Marriage and Family Therapists	3	Master's degree
21-1014	Mental Health Counselors	3	Master's degree
	Rehabilitation Counselors	3	Master's degree
	Counselors, All Other	3	Master's degree
21-1021	Child, Family, and School Social Workers	5	Bachelor's degree
21-1022	Medical and Public Health Social Workers	5	Bachelor's degree
21-1023	Mental Health and Substance Abuse Social Workers	3	Master's degree
21-1029	Social Workers, All Other	5	Bachelor's degree
21-1091	Health Educators	3	Master's degree
21-1092	Probation Officers and Correctional Treatment Specialists	5	Bachelor's degree
21-1093	Social and Human Service Assistants	10	Moderate-term on-the-job training
21-1099	Community and Social Service Specialists, All Other	5	Bachelor's degree
21-2011	Clergy	3	Master's degree
21-2021	Directors, Religious Activities and Education	5	Bachelor's degree
21-2099	Religious Workers, All Other	5	Bachelor's degree

S	Standard Occupation Classification (SOC)*		Training Requirements
Code	Occupation Title	Code	Training Description
23-1011	Lawyers	1	First professional degree
23-1021	Administrative Law Judges, Adjudicators, and Hearing	4	Bachelor's or higher degree, plus
22 1022	Officers Arbitrators, Mediators, and Conciliators	4	work experience
23-1022	Arbitrators, Mediators, and Conditators	4	Bachelor's or higher degree, plus work experience
23-1023	Judges, Magistrate Judges, and Magistrates	4	Bachelor's or higher degree, plus
20 1020	Tadgot, Magiotiato Tadgot, and Magiotiatos	•	work experience
23-2011	Paralegals and Legal Assistants	6	Associate degree
	Court Reporters	7	Postsecondary vocational training
	Law Clerks	5	Bachelor's degree
23-2093	Title Examiners, Abstractors, and Searchers	10	Moderate-term on-the-job training
	Legal Support Workers, All Other	5	Bachelor's degree
	Business Teachers, Postsecondary	3	Master's degree
	Computer Science Teachers, Postsecondary	3	Master's degree
	Mathematical Science Teachers, Postsecondary	3	Master's degree
	Architecture Teachers, Postsecondary	2	Doctoral degree
	Engineering Teachers, Postsecondary	2	Doctoral degree
	Agricultural Sciences Teachers, Postsecondary	2	Doctoral degree
	Biological Science Teachers, Postsecondary	2 2	Doctoral degree
25-1043	Forestry and Conservation Science Teachers, Postsecondary	2	Doctoral degree
25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers,	2	Doctoral degree
	Postsecondary		3
25-1052	Chemistry Teachers, Postsecondary	2	Doctoral degree
25-1053	Environmental Science Teachers, Postsecondary	2	Doctoral degree
	Physics Teachers, Postsecondary	2	Doctoral degree
	Anthropology and Archeology Teachers, Postsecondary	2	Doctoral degree
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	2	Doctoral degree
25-1063	Economics Teachers, Postsecondary	2	Doctoral degree
	Geography Teachers, Postsecondary	2	Doctoral degree
	Political Science Teachers, Postsecondary	2	Doctoral degree
25-1066	Psychology Teachers, Postsecondary	2	Doctoral degree
25-1067	Sociology Teachers, Postsecondary	2	Doctoral degree
25-1071	Health Specialties Teachers, Postsecondary	3	Master's degree
25-1072	•	2	Doctoral degree
25-1081	•	2	Doctoral degree
	Library Science Teachers, Postsecondary	2	Doctoral degree
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	2	Doctoral degree
25-1112	Law Teachers, Postsecondary	1	First professional degree
	Social Work Teachers, Postsecondary	2	Doctoral degree
	Art, Drama, and Music Teachers, Postsecondary	3	Master's degree
	Communications Teachers, Postsecondary	2	Doctoral degree
	English Language and Literature Teachers, Postsecondary	3	Master's degree
25-1124	Foreign Language and Literature Teachers, Postsecondary	3	Master's degree
			-
	History Teachers, Postsecondary	2	Doctoral degree
	Philosophy and Religion Teachers, Postsecondary	2 5	Doctoral degree
25-1191 25-1192	Graduate Teaching Assistants Home Economics Teachers, Postsecondary	3	Bachelor's degree Master's degree
	Recreation and Fitness Studies Teachers, Postsecondary	3	Master's degree
20-1190	residential and Finitess studies reachers, Fusisecondary	5	Masici S acgies

25-4012 Curators 25-4013 Museum Technicians and Conservators 25-4021 Librarians 25-4021 Librarians 25-4021 Library Technicians 25-4021 Library Technicians 25-9011 Audio-Visual Collections Specialists 3 Master's degree 25-4021 Farm and Home Management Advisors 25-9021 Farm and Home Management Advisors 25-9031 Instructional Coordinators 3 Master's degree 25-9041 Teacher Assistants 11 Short-term on-the-job training 25-9092 Education, Training, and Library Workers, All Other 25-9099 Education, Training, and Library Workers, All Other 27-1011 Art Directors 4 Bachelor's degree 27-1012 Craft Artists 9 Long-term on-the-job training 27-1013 Fine Artists, Including Painters, Sculptors, and Illustrators 27-1014 Multi-Media Artists and Animators 27-1015 Bachelor's degree 27-1016 Artists and Related Workers, All Other 27-1017 Artists and Related Workers, All Other 27-1018 Fine Artists and Related Workers, All Other 27-1019 Artists and Related Workers, All Other 27-1021 Commercial and Industrial Designers 5 Bachelor's degree 27-1022 Fashion Designers 10 Moderate-term on-the-job training 27-1024 Graphic Designers 10 Moderate-term on-the-job training 27-1025 Interior Designers 10 Moderate-term on-the-job training 27-1026 Merchandise Displayers and Window Trimmers 10 Moderate-term on-the-job training 27-1027 Set and Exhibit Designers 10 Bachelor's degree 27-1028 Designers, All Other 10 Seachelor's degree 11 Designers 12 Bachelor's degree 12 Designers, All Other 13 Bachelor's degree 14 Bachelor's or higher degree, plus work experience 15 Bachelor's degree 16 Associate degree 17 Designers 17 Bachelor's degree 18 Bachelor's degree 19 Long-term on-the-job training 27-2012 Producers and Directors 27 Bachelor's degree 27-1027 Set and Exhibit Designers 28 Bachelor's degree 27-1029 Designers, All Other 29 Long-term on-the-job training 27-2012 Producers and Sports Competitors 29 Long-term on-the-job training 27-2021 Athletes and Sports Competitors 29 Long-term on-the-job training 27-2022 Umpires, Referees, and Other Sports Officials	S	tandard Occupation Classification (SOC)*		Training Requirements
vork experience 25-2012 Preschool Teachers, All Other 25-2012 Preschool Teachers, Except Special Education 25-2012 Elementary School Teachers, Except Special Education 25-2012 Elementary School Teachers, Except Special Education 25-2012 Elementary School Teachers, Except Special Education 25-2012 Middle School Teachers, Except Special and Vocational 25-2023 Vocational Education Teachers, Middle School 25-2031 Secondary School Teachers, Except Special and Vocational 25-2032 Secondary School Teachers, Except Special and Vocational 25-2033 Secondary School Teachers, Except Special and Vocational 25-2043 Special Education Teachers, Secondary School 25-2044 Special Education Teachers, Preschool, Kindergarten, and 25-2045 Special Education Teachers, Secondary School 25-2046 Special Education Teachers, Secondary School 25-2047 Special Education Teachers, Secondary School 25-2048 Special Education Teachers, Secondary School 25-2049 Special Education Teachers, Secondary School 25-2040 Special Education Teachers, Secondary School 25-2041 Special Education Teachers, Secondary School 25-2042 Special Education Teachers, Secondary School 25-2043 Special Education Teachers, Secondary School 25-2044 Special Education Teachers 25-3011 Adult Literacy, Remedial Education, and GED Teachers and Instructors 25-3015 Self-Enrichment Education Teachers 25-3021 Self-Enrichment Education Teachers 25-3039 Teachers and Instructors, All Other 25-4011 Curators 25-4011 Curators 25-4011 Librarians 3 Master's degree 25-4011 Librarians 3 Master's degree 25-4011 Librarians 3 Master's degree 25-4021 Librarians 4 Multi-Media Artists and Animators 25-9014 Teacher Assistants 5 Bachelor's degree 27-1012 Corater Artists 9 Long-term on-the-job training 27-1014 Multi-Media Artists and Animators 27-1015 Fine Artists, Including Painters, Sculptors, and Illustrators 9 Long-term on-the-job training 27-1016 Merchandise Displayers and Window Trimmers 10 Moderate-term on-the-job training 27-1010 Seigners 10 Moderate-term on-the-job training 27-1010 Seigners 27-	Code	Occupation Title	Code	Training Description
25-1919 Postsecondary Teachers, All Other 2 Doctoral degree 25-2011 Preschool Teachers, Except Special Education 5 Bachelor's degree 25-2012 Minder School Teachers, Except Special Education 5 Bachelor's degree 25-2022 Midel School Teachers, Except Special and Vocational 5 Bachelor's degree 25-2022 Midel School Teachers, Except Special and Vocational 5 Bachelor's degree 25-2023 Vocational Education 7 Bachelor's degree 25-2023 Vocational Education 7 Bachelor's degree 25-2023 Vocational Education 7 Bachelor's degree 25-2031 Vocational Education 7 Bachelor's Special Education 7 Bachelor's Special Education 7 Vocational Education 7 Bachelor's Special Education 7 Bachelor's Special Education 7 Bachers, Preschool, Kindergarten, and 25-2032 Vocational Education 7 Bachers, Preschool, Kindergarten, and 25-2043 Special Education Teachers, Secondary School 5 Bachelor's degree 8 Bachelor's degree 9 Bachelo	25-1194	Vocational Education Teachers, Postsecondary	4	
Postsecondary vocational training   25-2012   Elementary School Teachers, Except Special Education   5   Bachelor's degree   25-2021   Elementary School Teachers, Except Special Education   5   Bachelor's degree   25-2021   Elementary School Teachers, Except Special Education   5   Bachelor's degree   25-2021   Elementary School Teachers, Except Special Education   5   Bachelor's degree   25-2022   Vocational Education Teachers, Middle School   4   Bachelor's or higher degree, plus work experience   Education   Vocational Education Teachers, Except Special and Vocational   5   Bachelor's degree   Education   Vocational Education Teachers, Secondary School   4   Bachelor's or higher degree, plus work experience   Vocational Education Teachers, Secondary School   5   Bachelor's degree   Bachelor's degree   Education Teachers, Preschool, Kindergarten, and Elementary School   5   Bachelor's degree   Bachelor's degree   Secondary School   5   Bachelor's degree	05.4400	Destruction Transfer All Office	0	·
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Elementary School Teachers, Except Special Education   5 Bachelor's degree		• •		
Bachelor's degree				
Education 25-2023 Vocational Education Teachers, Middle School work experience 25-2031 Secondary School Teachers, Except Special and Vocational Education 25-2032 Vocational Education Teachers, Secondary School Bachelor's or higher degree, plus work experience 25-2042 Special Education Teachers, Preschool, Kindergarten, and Elementary School 25-2042 Special Education Teachers, Middle School 5 Bachelor's degree 25-2043 Special Education Teachers, Secondary School 5 Bachelor's degree 25-2044 Special Education Teachers, Middle School 5 Bachelor's degree 25-2043 Special Education Teachers, Secondary School 5 Bachelor's degree 25-2041 Special Education Teachers, Secondary School 5 Bachelor's degree 25-2042 Special Education Teachers, Secondary School 5 Bachelor's degree 25-2013 Advit Literacy, Remedial Education, and GED Teachers and Instructors 25-3011 Advit Literacy, Remedial Education, and GED Teachers and Instructors 25-3021 Farnishment Education Teachers 25-3031 Teachers and Instructors, All Other 5 Bachelor's degree 25-4041 Archivists 25-4041 Archivists 25-4041 Archivists 25-4041 Librarians 3 Master's degree 25-4041 Librarians 3 Master's degree 25-4041 Library Technicians and Conservators 3 Master's degree 25-9041 Teacher Assistants 1 Dividerate-term on-the-job training 25-9041 Teacher Assistants 1 Short-term on-the-job training 25-9041 Teacher Assistants 1 Short-term on-the-job training 25-9041 Teacher Assistants 1 Short-term on-the-job training 27-1012 Carft Artists 27-1013 Fine Artists, Including Painters, Sculptors, and Illustrators 27-1014 Multi-Media Artists and Animators 27-1015 Fine Artists, Including Painters, Sculptors, and Illustrators 27-1016 Fine Artists, Including Painters, Sculptors, and Illustrators 27-1017 Set and Exhibit Designers 10 Moderate-term on-the-job training 27-1018 Fine Artists and Animators 27-1019 Set and Exhibit Designers 10 Moderate-term on-the-job training 27-1020 Segnere Assistant Window Trimmers 10 Moderate-term on-the-job training 27-1021 Pashion Designers 10 Moderate-term on				
Bachelor's or higher degree, plus work experience	25-2022	· · ·	3	bachelor's degree
work experience backetoria  Secondary School Teachers, Except Special and Vocational Education  Secondary School Teachers, Except Special and Vocational Education  Secondary School  Secondary School  Special Education Teachers, Secondary School  Elementary School  Special Education Teachers, Middle School  Special Education Teachers, Secondary School  Special Education Teachers, Secondary School  Special Education Teachers, Secondary School  Special Education Teachers, Middle School  Special Education Teachers, Secondary School  Special Education, Teachers  Special Education, Teachers  Special Educati	25-2023		4	Bachelor's or higher degree, plus
Education  25-2032 Vocational Education Teachers, Secondary School  Special Education Teachers, Preschool, Kindergarten, and Elementary School  25-2042 Special Education Teachers, Middle School  25-2043 Special Education Teachers, Middle School  25-2043 Special Education Teachers, Middle School  25-2043 Special Education Teachers, Secondary School  25-3011 Adult Literacy, Remedial Education, and GED Teachers and Instructors  25-3021 Self-Enrichment Education Teachers  25-3021 Self-Enrichment Education Teachers  25-3021 Teachers and Instructors, All Other  25-3099 Teachers and Instructors, All Other  25-4011 Archivists  3 Master's degree  25-4011 Archivists  3 Master's degree  25-4012 Curators  3 Master's degree  25-4013 Librarians  3 Master's degree  25-4014 Librarians  3 Master's degree  25-4015 Library Technicians  3 Master's degree  25-4015 Library Technicians  3 Master's degree  25-901 Farm and Home Management Advisors  25-901 Farm and Home Management Advisors  25-9021 Farm and Home Management Advisors  25-9031 Instructional Coordinators  25-9031 Instructional Coordinators  25-9041 Teacher Assistants  11 Short-term on-the-job training  27-1011 Art Directors  27-1012 Craft Artists  27-1013 Fine Artists, Including Painters, Sculptors, and Illustrators  27-1014 Multi-Media Artists and Animators  27-1015 Fine Artists, Including Painters, Sculptors, and Illustrators  3 Master's degree  3 Bachelor's degree  4 Bachelor's degree  5 Bachelor's degree  7-1012 Craft Artists  9 Long-term on-the-job training  27-1013 Fine Artists, Including Painters, Sculptors, and Illustrators  9 Long-term on-the-job training  27-1016 Artists and Related Workers, All Other  27-1017 Set and Exhibit Designers  5 Bachelor's degree  5 Bachelor's degree  6 Associate degree  7-1017 Forumerical and Industrial Designers  5 Bachelor's degree  7-1018 Bachelor's degree  7-1019 Designers				
25-2032         Vocational Education Teachers, Secondary School         4         Bachelor's or higher degree, plus work experience           25-2041         Special Education Teachers, Preschool, Kindergarten, and Elementary School         5         Bachelor's degree           25-2042         Special Education Teachers, Middle School         5         Bachelor's degree           25-2043         Special Education Teachers, Secondary School         5         Bachelor's degree           25-3021         Adult Literacy, Remedial Education, and GED Teachers and Instructors         5         Bachelor's degree           25-3021         Self-Enrichment Education Teachers         8         Work experience in a related occupation           25-3039         Teachers and Instructors, All Other         5         Bachelor's degree           25-4012         Curators         3         Master's degree           25-4012         Librarians         3         Master's degree           25-4013         Library Technicians         7         Postsecondary vocational training           25-9011         Jarra and Home Management Advisors         5         Bachelor's degree           25-901         Iram and Home Management Advisors         5         Bachelor's degree           27-1011         Art Directors         4         Bachelor's degree	25-2031	Secondary School Teachers, Except Special and Vocational	5	Bachelor's degree
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27-1021 Commercial and Industrial Designers 27-1022 Fashion Designers 27-1023 Floral Designers 27-1024 Graphic Designers 27-1025 Interior Designers 27-1026 Merchandise Displayers and Window Trimmers 27-1027 Set and Exhibit Designers 27-1029 Designers, All Other 27-2011 Actors 27-2012 Athletes and Sports Competitors 27-2022 Coaches and Scouts 27-2023 Umpires, Referees, and Other Sports Officials 25 Bachelor's degree 26 Associate degree 27 Associate degree 27 Associate degree 26 Associate degree 27 Associate degree 27 Associate degree 28 Associate degree 29 Bachelor's degree 29 Associate degree 29 Associate degree 20 Associate degree 21 Associate degree 22 Associate degree 23 Associate degree 24 Associate degree 25 Bachelor's degree 25 Bachelor's degree 26 Associate degree 27 Associate degree 27 Associate degree 27 Associate degree 27 Associate degree 28 Associate degree 29 Associate degree 29 Associate degree 20 Associate degree 20 Associate degree 20 Associate degree 21 Associate degree 22 Associate degree 23 Associate degree 24 Associate degree 25 Associate degree 26 Associate degree 27 Associate degree 28 Associate degree 29 Associate degree 29 A	27-1014	Multi-Media Artists and Animators	5	Bachelor's degree
Fashion Designers Floral Designers Flora	27-1019	Artists and Related Workers, All Other	9	Long-term on-the-job training
Floral Designers  Graphic Designers  Graphic Designers  Therrior D	27-1021	Commercial and Industrial Designers	5	<u> </u>
27-1024 Graphic Designers 27-1025 Interior Designers 27-1026 Merchandise Displayers and Window Trimmers 27-1027 Set and Exhibit Designers 27-1029 Designers, All Other 27-2011 Actors 27-2012 Producers and Directors 27-2021 Athletes and Sports Competitors 27-2022 Coaches and Scouts 27-2023 Umpires, Referees, and Other Sports Officials 25 Bachelor's degree 26 Bachelor's degree 27 Bachelor's degree 28 Bachelor's degree 29 Long-term on-the-job training 20 Long-term on-the-job training 20 Long-term on-the-job training 20 Long-term on-the-job training 21 Long-term on-the-job training 22 Long-term on-the-job training 23 Long-term on-the-job training 24 Long-term on-the-job training 25 Long-term on-the-job training		The state of the s		<u> </u>
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27-2023 Umpires, Referees, and Other Sports Officials 9 Long-term on-the-job training				
21-2001 Danoers 9 Long-term on-the-job training	27-2031	Dancers	9	Long-term on-the-job training

5	Standard Occupation Classification (SOC)*		Training Requirements
Code	Occupation Title	Code	Training Description
27-2032	Choreographers	8	Work experience in a related
27-2041	Music Directors and Composers	4	occupation Bachelor's or higher degree, plus
	·		work experience
	Musicians and Singers	9	Long-term on-the-job training
27-2099	Entertainers and Performers, Sports and Related Workers, All Other	9	Long-term on-the-job training
27-3011	Radio and Television Announcers	9	Long-term on-the-job training
	Public Address System and Other Announcers	9	Long-term on-the-job training
27-3021	Broadcast News Analysts	4	Bachelor's or higher degree, plus work experience
27-3022	Reporters and Correspondents	4	Bachelor's or higher degree, plus work experience
27-3031	Public Relations Specialists	5	Bachelor's degree
27-3041	Editors	5	Bachelor's degree
27-3042	Technical Writers	5	Bachelor's degree
27-3043	Writers and Authors	5	Bachelor's degree
27-3091	Interpreters and Translators	9	Long-term on-the-job training
27-3099	Media and Communication Workers, All Other	9	Long-term on-the-job training
27-4011	Audio and Video Equipment Technicians	9	Long-term on-the-job training
27-4012	Broadcast Technicians	6	Associate degree
	Radio Operators	10	Moderate-term on-the-job training
	Sound Engineering Technicians	7	Postsecondary vocational training
	Photographers	9	Long-term on-the-job training
27-4031	Camera Operators, Television, Video, and Motion Picture	10	Moderate-term on-the-job training
	Film and Video Editors	5	Bachelor's degree
27-4099	Media and Communication Equipment Workers, All Other	10	Moderate-term on-the-job training
29-1011	Chiropractors	1	First professional degree
29-1021	Dentists, General	1	First professional degree
	Oral and Maxillofacial Surgeons	1	First professional degree
29-1023	Orthodontists	1	First professional degree
	Dentists, All Other Specialists	1	First professional degree
29-1031	Dietitians and Nutritionists	5	Bachelor's degree
29-1041	Optometrists	1	First professional degree
29-1051	Pharmacists An authorisis prints	1	First professional degree
29-1061	Anesthesiologists	1	First professional degree
29-1062 29-1063	Family and General Practitioners Internists, General	1 1	First professional degree First professional degree
	Obstetricians and Gynecologists	1	First professional degree
	Pediatricians, General	1	First professional degree
	Psychiatrists	1	First professional degree
	Surgeons	1	First professional degree
29-1069	Physicians and Surgeons, All Other	1	First professional degree
29-1071	Physician Assistants	5	Bachelor's degree
29-1081	Podiatrists	1	First professional degree
29-1111	Registered Nurses	6	Associate degree
29-1121	Audiologists	1	First professional degree
29-1122	Occupational Therapists	3	Master's degree
29-1123		3	Master's degree
	Radiation Therapists	6	Associate degree
	Recreational Therapists	5	Bachelor's degree
29-1126	Respiratory Therapists	6	Associate degree
29-1127	Speech-Language Pathologists	3	Master's degree
29-1129	Therapists, All Other	5	Bachelor's degree

S	Standard Occupation Classification (SOC)*		Training Requirements
Code	Occupation Title	Code	Training Description
29-1131	Veterinarians	1	First professional degree
29-1199	Health Diagnosing and Treating Practitioners, All Other	5	Bachelor's degree
29-2011	Medical and Clinical Laboratory Technologists	5	Bachelor's degree
29-2012	Medical and Clinical Laboratory Technicians	6	Associate degree
29-2021	Dental Hygienists	6	Associate degree
29-2031	Cardiovascular Technologists and Technicians	6	Associate degree
29-2032	Diagnostic Medical Sonographers Nuclear Medicine Technologists	6	Associate degree Associate degree
29-2033 29-2034	Radiologic Technologists and Technicians	6	Associate degree
29-2034	Emergency Medical Technicians and Paramedics	6 7	The state of the s
29-2041	Dietetic Technicians	, 10	Postsecondary vocational training Moderate-term on-the-job training
29-2052		10	Moderate-term on-the-job training
29-2053	Psychiatric Technicians	10	Moderate-term on-the-job training
29-2054	Respiratory Therapy Technicians	6	Associate degree
29-2055	Surgical Technologists	7	Postsecondary vocational training
29-2056	Veterinary Technologists and Technicians	6	Associate degree
29-2061	Licensed Practical and Licensed Vocational Nurses	7	Postsecondary vocational training
29-2071	Medical Records and Health Information Technicians	6	Associate degree
29-2081	Opticians, Dispensing	9	Long-term on-the-job training
29-2091	Orthotists and Prosthetists	5	Bachelor's degree
29-2099	Health Technologists and Technicians, All Other	7	Postsecondary vocational training
29-9011	Occupational Health and Safety Specialists	5	Bachelor's degree
29-9012	Occupational Health and Safety Technicians	7	Postsecondary vocational training
29-9091	Athletic Trainers	5	Bachelor's degree
29-9099	Healthcare Practitioners and Technical Workers, All Other	7	Postsecondary vocational training
31-1011	Home Health Aides	11	Short-term on-the-job training
31-1012	Nursing Aides, Orderlies, and Attendants	7	Postsecondary vocational training
31-1013	Psychiatric Aides	11	Short-term on-the-job training
31-2011	Occupational Therapist Assistants	6	Associate degree
31-2012	Occupational Therapist Aides	11	Short-term on-the-job training
31-2021	Physical Therapist Assistants	6	Associate degree
31-2022	Physical Therapist Aides	11	Short-term on-the-job training
31-9011	Massage Therapists	7	Postsecondary vocational training
31-9091	Dental Assistants	10	Moderate-term on-the-job training
31-9092	Medical Assistants	10	Moderate-term on-the-job training
31-9093	Medical Equipment Preparers	11	Short-term on-the-job training
31-9094	Medical Transcriptionists	7	Postsecondary vocational training
31-9095	Pharmacy Addes	11	Short-term on-the-job training
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	11	Short-term on-the-job training
31-9099	Healthcare Support Workers, All Other First-Line Supervisors/Managers of Correctional Officers	11 8	Short-term on-the-job training Work experience in a related
33-1011	First-Line Supervisors/ivianagers of Correctional Officers	0	occupation
33-1012	First-Line Supervisors/Managers of Police and Detectives	8	Work experience in a related occupation
33-1021	First-Line Supervisors/Managers of Fire Fighting and	8	Work experience in a related
00.4000	Prevention Workers	•	occupation
33-1099	First-Line Supervisors/Managers, Protective Service Workers, All Other	8	Work experience in a related occupation
33-2011	Fire Fighters	9	Long-term on-the-job training
33-2021	Fire Inspectors and Investigators	8	Work experience in a related
33-2022	Forest Fire Inspectors and Prevention Specialists	8	occupation Work experience in a related
JJ-2U22		O	occupation
33-3011	Bailiffs	10	Moderate-term on-the-job training

S	Standard Occupation Classification (SOC)*		Training Requirements
Code	Occupation Title	Code	Training Description
33-3012	Correctional Officers and Jailers	10	Moderate-term on-the-job training
33-3021	Detectives and Criminal Investigators	8	Work experience in a related
	<b>S</b>		occupation
33-3031	Fish and Game Wardens	6	Associate degree
33-3041	Parking Enforcement Workers	11	Short-term on-the-job training
33-3051	Police and Sheriff's Patrol Officers	9	Long-term on-the-job training
33-3052	Transit and Railroad Police	9	Long-term on-the-job training
33-9011	Animal Control Workers	10	Moderate-term on-the-job training
33-9021	Private Detectives and Investigators	8	Work experience in a related
00 0021	Thrate Belockvoe and invockgalore	Ü	occupation
33-9031	Gaming Surveillance Officers and Gaming Investigators	10	Moderate-term on-the-job training
33-9032	Security Guards	11	Short-term on-the-job training
33-9091	Crossing Guards	11	Short-term on-the-job training
	Lifeguards, Ski Patrol, and Other Recreational Protective	11	Short-term on-the-job training
	Service Workers		<b>,</b>
33-9099	Protective Service Workers, All Other	11	Short-term on-the-job training
35-1011	Chefs and Head Cooks	8	Work experience in a related
			occupation
35-1012	First-Line Supervisors/Managers of Food Preparation and	8	Work experience in a related
	Serving Workers		occupation
35-2011	Cooks, Fast Food	11	Short-term on-the-job training
	Cooks, Institution and Cafeteria	10	Moderate-term on-the-job training
	Cooks, Private Household	9	Long-term on-the-job training
	Cooks, Restaurant	9	Long-term on-the-job training
	Cooks, Short Order	11	Short-term on-the-job training
	Cooks, All Other	10	Moderate-term on-the-job training
35-2021	Food Preparation Workers	11	Short-term on-the-job training
35-3011	Bartenders	11	Short-term on-the-job training
35-3021	Combined Food Preparation and Serving Workers, Including	11	Short-term on-the-job training
	Fast Food		Guerr term en une jee namm.g
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee	11	Short-term on-the-job training
	Shop		, 3
35-3031	Waiters and Waitresses	11	Short-term on-the-job training
35-3041	Food Servers, Nonrestaurant	11	Short-term on-the-job training
35-9011	Dining Room and Cafeteria Attendants and Bartender	11	Short-term on-the-job training
	Helpers		, 0
35-9021	Dishwashers	11	Short-term on-the-job training
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	11	Short-term on-the-job training
	•		
35-9099	Food Preparation and Serving Related Workers, All Other	11	Short-term on-the-job training
37-1011	First-Line Supervisors/Managers of Housekeeping and	8	Work experience in a related
	Janitorial Workers		occupation
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn	8	Work experience in a related
	Service, and Groundskeeping Workers		occupation
37-2011	Janitors and Cleaners, Except Maids and Housekeeping	11	Short-term on-the-job training
	Cleaners		
37-2012	Maids and Housekeeping Cleaners	11	Short-term on-the-job training
37-2019	Building Cleaning Workers, All Other	11	Short-term on-the-job training
37-2021	Pest Control Workers	10	Moderate-term on-the-job training
37-3011	Landscaping and Groundskeeping Workers	11	Short-term on-the-job training
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	10	Moderate-term on-the-job training
37-3013	Tree Trimmers and Pruners	11	Short-term on-the-job training
37-3019	Grounds Maintenance Workers, All Other	11	Short-term on-the-job training

S	standard Occupation Classification (SOC)*		Training Requirements
Code	Occupation Title	Code	Training Description
39-1011	Gaming Supervisors	8	Work experience in a related
	01.47	_	occupation
	Slot Key Persons	7	Postsecondary vocational training
39-1021	First-Line Supervisors/Managers of Personal Service Workers	8	Work experience in a related
39-2011	Animal Trainers	10	occupation  Moderate-term on-the-job training
39-2011	Nonfarm Animal Caretakers	11	Short-term on-the-job training
	Gaming Dealers	7	Postsecondary vocational training
	Gaming and Sports Book Writers and Runners	11	Short-term on-the-job training
	Gaming Service Workers, All Other	10	Moderate-term on-the-job training
39-3021	Motion Picture Projectionists	11	Short-term on-the-job training
39-3031	Ushers, Lobby Attendants, and Ticket Takers	11	Short-term on-the-job training
39-3091	Amusement and Recreation Attendants	11	Short-term on-the-job training
39-3092	Costume Attendants	11	Short-term on-the-job training
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	11	Short-term on-the-job training
39-3099	Entertainment Attendants and Related Workers, All Other	10	Moderate-term on-the-job training
39-4011	Embalmers	7	Postsecondary vocational training
39-4021	Funeral Attendants	11	Short-term on-the-job training
39-5011	Barbers	7	Postsecondary vocational training
	Hairdressers, Hairstylists, and Cosmetologists	7	Postsecondary vocational training
39-5091	Makeup Artists, Theatrical and Performance	7	Postsecondary vocational training
39-5092 39-5093	Manicurists and Pedicurists	7 11	Postsecondary vocational training
	Shampooers Skin Care Specialists	7	Short-term on-the-job training Postsecondary vocational training
39-6011	Baggage Porters and Bellhops	, 11	Short-term on-the-job training
	Concierges	10	Moderate-term on-the-job training
39-6021	Tour Guides and Escorts	10	Moderate-term on-the-job training
	Travel Guides	10	Moderate-term on-the-job training
39-6031	Flight Attendants	9	Long-term on-the-job training
39-6032	Transportation Attendants, Except Flight Attendants and	11	Short-term on-the-job training
	Baggage Porters		
39-9011	Child Care Workers	11	Short-term on-the-job training
39-9021	Personal and Home Care Aides	11	Short-term on-the-job training
39-9031	Fitness Trainers and Aerobics Instructors	7	Postsecondary vocational training
	Recreation Workers	11	Short-term on-the-job training
39-9041	Residential Advisors Personal Care and Service Workers, All Other	10 11	Moderate-term on-the-job training Short-term on-the-job training
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	8	Work experience in a related
41-1011	Thist-Line Supervisors/Managers of Metali Sales Workers	O	occupation
41-1012	First-Line Supervisors/Managers of Non-Retail Sales	8	Work experience in a related
	Workers	· ·	occupation
41-2011	Cashiers	11	Short-term on-the-job training
41-2012	Gaming Change Persons and Booth Cashiers	11	Short-term on-the-job training
41-2021	Counter and Rental Clerks	11	Short-term on-the-job training
	Parts Salespersons	10	Moderate-term on-the-job training
41-2031	Retail Salespersons	11	Short-term on-the-job training
	Advertising Sales Agents	10	Moderate-term on-the-job training
41-3021	Insurance Sales Agents	5	Bachelor's degree
41-3031	Securities, Commodities, and Financial Services Sales Agents	5	Bachelor's degree
41-3041	Travel Agents	7	Postsecondary vocational training
41-3099	Sales Representatives, Services, All Other	10	Moderate-term on-the-job training
41-4011	Sales Representatives, Wholesale and Manufacturing,	10	Moderate-term on-the-job training
	Technical and Scientific Products		

S	Standard Occupation Classification (SOC)*		Training Requirements
Code	Occupation Title	Code	Training Description
41-4012	Sales Representatives, Wholesale and Manufacturing,	10	Moderate-term on-the-job training
44.0044	Except Technical and Scientific Products	4.0	
41-9011	Demonstrators and Product Promoters	10	Moderate-term on-the-job training
41-9012	Models	10	Moderate-term on-the-job training
41-9021	Real Estate Brokers	8	Work experience in a related
41-9022	Real Estate Sales Agents	7	occupation Postsecondary vocational training
41-9022	Sales Engineers	5	Bachelor's degree
41-9041	Telemarketers	11	Short-term on-the-job training
41-9091	Door-To-Door Sales Workers, News and Street Vendors,	11	Short-term on-the-job training
	and Related Workers		Green term on the jet training
41-9099	Sales and Related Workers, All Other	10	Moderate-term on-the-job training
43-1011	First-Line Supervisors/Managers of Office and Administrative	8	Work experience in a related
	Support Workers		occupation
43-2011	Switchboard Operators, Including Answering Service	11	Short-term on-the-job training
43-2021	Telephone Operators	11	Short-term on-the-job training
43-2099	Communications Equipment Operators, All Other	11	Short-term on-the-job training
43-3011	Bill and Account Collectors	11	Short-term on-the-job training
43-3021	Billing and Posting Clerks and Machine Operators	10	Moderate-term on-the-job training
43-3031	Bookkeeping, Accounting, and Auditing Clerks	10	Moderate-term on-the-job training
43-3041	Gaming Cage Workers	11	Short-term on-the-job training
43-3051	Payroll and Timekeeping Clerks	10	Moderate-term on-the-job training
43-3061	Procurement Clerks	11	Short-term on-the-job training
43-3071	Tellers Prokorogo Clarko	11	Short-term on-the-job training
43-4011 43-4021	Brokerage Clerks Correspondence Clerks	10 11	Moderate-term on-the-job training Short-term on-the-job training
43-4021	Court, Municipal, and License Clerks	11	Short-term on-the-job training
43-4041	Credit Authorizers, Checkers, and Clerks	11	Short-term on-the-job training
43-4051	Customer Service Representatives	10	Moderate-term on-the-job training
43-4061	Eligibility Interviewers, Government Programs	10	Moderate-term on-the-job training
43-4071	File Clerks	11	Short-term on-the-job training
43-4081	Hotel, Motel, and Resort Desk Clerks	11	Short-term on-the-job training
43-4111	Interviewers, Except Eligibility and Loan	11	Short-term on-the-job training
43-4121	Library Assistants, Clerical	11	Short-term on-the-job training
43-4131	Loan Interviewers and Clerks	11	Short-term on-the-job training
43-4141	New Accounts Clerks	8	Work experience in a related
			occupation
43-4151	Order Clerks	11	Short-term on-the-job training
43-4161	Human Resources Assistants, Except Payroll and	11	Short-term on-the-job training
40 4474	Timekeeping	4.4	
43-4171	Receptionists and Information Clerks	11	Short-term on-the-job training
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	11	Short-term on-the-job training
43-4199	Information and Record Clerks, All Other	11	Short-term on-the-job training
43-5011	Cargo and Freight Agents	10	Moderate-term on-the-job training
43-5021	Couriers and Messengers	11	Short-term on-the-job training
43-5021	Police, Fire, and Ambulance Dispatchers	10	Moderate-term on-the-job training
43-5032	Dispatchers, Except Police, Fire, and Ambulance	10	Moderate-term on-the-job training
43-5041	Meter Readers, Utilities	11	Short-term on-the-job training
43-5051	Postal Service Clerks	11	Short-term on-the-job training
43-5052	Postal Service Mail Carriers	11	Short-term on-the-job training
43-5053	Postal Service Mail Sorters, Processors, and Processing	11	Short-term on-the-job training
	Machine Operators		· · · · ·
43-5061	Production, Planning, and Expediting Clerks	11	Short-term on-the-job training
43-5071	Shipping, Receiving, and Traffic Clerks	11	Short-term on-the-job training

S	Standard Occupation Classification (SOC)*		Training Requirements
Code	Occupation Title	Code	Training Description
43-5081	Stock Clerks and Order Fillers	11	Short-term on-the-job training
43-5111	Weighers, Measurers, Checkers, and Samplers,	11	Short-term on-the-job training
	Recordkeeping		
43-6011	Executive Secretaries and Administrative Assistants	10	Moderate-term on-the-job training
43-6012	3	7	Postsecondary vocational training
43-6013	Medical Secretaries	7	Postsecondary vocational training
	Secretaries, Except Legal, Medical, and Executive	10	Moderate-term on-the-job training
	Computer Operators	10	Moderate-term on-the-job training
	Data Entry Keyers	10	Moderate-term on-the-job training
	Word Processors and Typists	10	Moderate-term on-the-job training
43-9031	Desktop Publishers	7	Postsecondary vocational training
43-9041	Insurance Claims and Policy Processing Clerks	10	Moderate-term on-the-job training
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	11	Short-term on-the-job training
43-9061	Office Clerks, General	11	Short-term on-the-job training
43-9071	Office Machine Operators, Except Computer	11	Short-term on-the-job training
43-9081	Proofreaders and Copy Markers	11	Short-term on-the-job training
43-9111	Statistical Assistants	10	Moderate-term on-the-job training
43-9199	11 ,	11	Short-term on-the-job training
45-1011	First-Line Supervisors/Managers of Farming, Fishing, and Forestry Workers	8	Work experience in a related occupation
45-1012	Farm Labor Contractors	8	Work experience in a related occupation
45-2011	Agricultural Inspectors	8	Work experience in a related
45.0004	A : 1B 1	4.4	occupation
45-2021	Animal Breeders	11	Short-term on-the-job training
45-2041	Graders and Sorters, Agricultural Products	8	Work experience in a related occupation
45-2091	Agricultural Equipment Operators	10	Moderate-term on-the-job training
	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	11	Short-term on-the-job training
45-2093	Farmworkers, Farm and Ranch Animals	11	Short-term on-the-job training
45-2099	Agricultural Workers, All Other	11	Short-term on-the-job training
45-3011	Fishers and Related Fishing Workers	10	Moderate-term on-the-job training
45-3021	Hunters and Trappers	10	Moderate-term on-the-job training
	Forest and Conservation Workers	10	Moderate-term on-the-job training
45-4021	Fallers	10	Moderate-term on-the-job training
	Logging Equipment Operators	10	Moderate-term on-the-job training
	Log Graders and Scalers	10	Moderate-term on-the-job training
	Logging Workers, All Other	10	Moderate-term on-the-job training
47-1011	First-Line Supervisors/Managers of Construction Trades and	8	Work experience in a related
47 2044	Extraction Workers	0	occupation
47-2011	Boilermakers  Brickmasses and Blockmassess	9	Long-term on the job training
47-2021 47-2022	Brickmasons and Blockmasons Stonemasons	9 9	Long-term on-the-job training  Long-term on-the-job training
47-2022	Carpenters	9	Long-term on-the-job training  Long-term on-the-job training
47-2031	Carpet Installers	10	Moderate-term on-the-job training
	Floor Layers, Except Carpet, Wood, and Hard Tiles	10	Moderate-term on-the-job training
47-2042	Floor Sanders and Finishers	10	Moderate-term on-the-job training
47-2044	Tile and Marble Setters	9	Long-term on-the-job training
47-2051	Cement Masons and Concrete Finishers	10	Moderate-term on-the-job training
	Terrazzo Workers and Finishers	9	Long-term on-the-job training
47-2061	Construction Laborers	10	Moderate-term on-the-job training
47-2071		10	Moderate-term on-the-job training
	Pile-Driver Operators	10	Moderate-term on-the-job training

S	Standard Occupation Classification (SOC)*		Training Requirements
Code	Occupation Title	Code	Training Description
47-2073	Operating Engineers and Other Construction Equipment	10	Moderate-term on-the-job training
47-2081	Operators Drywall and Ceiling Tile Installers	10	Moderate term on the job training
47-2081	Tapers	10	Moderate-term on-the-job training Moderate-term on-the-job training
47-2002	Electricians	9	Long-term on-the-job training
47-2111	Glaziers	9	Long-term on-the-job training
47-2131	Insulation Workers, Floor, Ceiling, and Wall	10	Moderate-term on-the-job training
47-2132	Insulation Workers, Mechanical	10	Moderate-term on-the-job training
47-2141	Painters, Construction and Maintenance	10	Moderate-term on-the-job training
47-2142	Paperhangers	10	Moderate-term on-the-job training
47-2151	Pipelayers	10	Moderate-term on-the-job training
47-2152	Plumbers, Pipefitters, and Steamfitters	9	Long-term on-the-job training
47-2161	Plasterers and Stucco Masons	9	Long-term on-the-job training
47-2171	Reinforcing Iron and Rebar Workers	9	Long-term on-the-job training
47-2181	Roofers	10	Moderate-term on-the-job training
47-2211	Sheet Metal Workers	9	Long-term on-the-job training
47-2221	Structural Iron and Steel Workers	9	Long-term on-the-job training
47-3011	HelpersBrickmasons, Blockmasons, Stonemasons, and	11	Short-term on-the-job training
	Tile and Marble Setters		, ,
47-3012	HelpersCarpenters	11	Short-term on-the-job training
47-3013	HelpersElectricians	11	Short-term on-the-job training
47-3014	HelpersPainters, Paperhangers, Plasterers, and Stucco Masons	11	Short-term on-the-job training
47-3015	HelpersPipelayers, Plumbers, Pipefitters, and Steamfitters	11	Short-term on-the-job training
47-3016	HelpersRoofers	11	Short-term on-the-job training
47-3019	Helpers, Construction Trades, All Other	11	Short-term on-the-job training
47-4011	Construction and Building Inspectors	8	Work experience in a related
			occupation
47-4021	Elevator Installers and Repairers	9	Long-term on-the-job training
47-4031	Fence Erectors	10	Moderate-term on-the-job training
47-4041	Hazardous Materials Removal Workers	10	Moderate-term on-the-job training
47-4051	Highway Maintenance Workers	10	Moderate-term on-the-job training
47-4061	Rail-Track Laying and Maintenance Equipment Operators	10	Moderate-term on-the-job training
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	10	Moderate-term on-the-job training
47-4091	Segmental Pavers	10	Moderate-term on-the-job training
47-4099	Construction and Related Workers, All Other	10	Moderate-term on-the-job training
47-5011	Derrick Operators, Oil and Gas	10	Moderate-term on-the-job training
47-5012	Rotary Drill Operators, Oil and Gas	10	Moderate-term on-the-job training
47-5013	Service Unit Operators, Oil, Gas, and Mining	10	Moderate-term on-the-job training
47-5021	Earth Drillers, Except Oil and Gas	10	Moderate-term on-the-job training
47-5031	Explosives Workers, Ordnance Handling Experts, and Blasters	10	Moderate-term on-the-job training
47-5041	Continuous Mining Machine Operators	10	Moderate-term on-the-job training
47-5042	Mine Cutting and Channeling Machine Operators	10	Moderate-term on-the-job training
47-5049	Mining Machine Operators, All Other	10	Moderate-term on-the-job training
47-5051	Rock Splitters, Quarry	10	Moderate-term on-the-job training
47-5061	Roof Bolters, Mining	10	Moderate-term on-the-job training
47-5071	Roustabouts, Oil and Gas	10	Moderate-term on-the-job training
47-5081	HelpersExtraction Workers	11	Short-term on-the-job training
47-5099	Extraction Workers, All Other	10	Moderate-term on-the-job training
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	8	Work experience in a related occupation
49-2011	Computer, Automated Teller, and Office Machine Repairers	7	Postsecondary vocational training

S	standard Occupation Classification (SOC)*		Training Requirements
Code	Occupation Title	Code	Training Description
49-2021	Radio Mechanics	7	Postsecondary vocational training
49-2022	Telecommunications Equipment Installers and Repairers,	9	Long-term on-the-job training
	Except Line Installers		
49-2091	Avionics Technicians	7	Postsecondary vocational training
	Electric Motor, Power Tool, and Related Repairers	7	Postsecondary vocational training
49-2093	·	7	Postsecondary vocational training
49-2094	Transportation Equipment Electrical and Electronics Repairers, Commercial and Industrial Equipment	7	Postsecondary vocational training
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	7	Postsecondary vocational training
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	7	Postsecondary vocational training
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	7	Postsecondary vocational training
49-2098	Security and Fire Alarm Systems Installers	7	Postsecondary vocational training
49-3011	Aircraft Mechanics and Service Technicians	7	Postsecondary vocational training
49-3021	Automotive Body and Related Repairers	9	Long-term on-the-job training
49-3022	· · · · · · · · · · · · · · · · · · ·	9	Long-term on-the-job training
49-3023	Automotive Service Technicians and Mechanics	7	Postsecondary vocational training
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	7	Postsecondary vocational training
49-3041	Farm Equipment Mechanics	7	Postsecondary vocational training
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	7	Postsecondary vocational training
49-3043	Rail Car Repairers	9	Long-term on-the-job training
49-3051	Motorboat Mechanics	9	Long-term on-the-job training
49-3052	Motorcycle Mechanics	9	Long-term on-the-job training
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	10	Moderate-term on-the-job training
49-3091	Bicycle Repairers	10	Moderate-term on-the-job training
49-3092		9	Long-term on-the-job training
49-3093 49-9011	Tire Repairers and Changers	11	Short-term on-the-job training
49-9011	Mechanical Door Repairers Control and Valve Installers and Repairers Except	10 10	Moderate-term on-the-job training  Moderate-term on-the-job training
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door Heating, Air Conditioning, and Refrigeration Mechanics and	9	Long-term on-the-job training
	Installers		, , ,
49-9031	Home Appliance Repairers	9 9	Long-term on-the-job training
49-9041 49-9042	Industrial Machinery Mechanics Maintenance and Repair Workers, General	10	Long-term on-the-job training  Moderate-term on-the-job training
49-9042	Maintenance Workers, Machinery	11	Short-term on-the-job training
49-9044	Millwrights	9	Long-term on-the-job training
49-9045	Refractory Materials Repairers, Except Brickmasons	10	Moderate-term on-the-job training
49-9051	Electrical Power-Line Installers and Repairers	9	Long-term on-the-job training
49-9052	Telecommunications Line Installers and Repairers	9	Long-term on-the-job training
49-9061	Camera and Photographic Equipment Repairers	10	Moderate-term on-the-job training
49-9062	Medical Equipment Repairers	6	Associate degree
49-9063	Musical Instrument Repairers and Tuners	9	Long-term on-the-job training
49-9064	Watch Repairers	9	Long-term on-the-job training
49-9069	Precision Instrument and Equipment Repairers, All Other	10	Moderate-term on-the-job training
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	10	Moderate-term on-the-job training
49-9093	Fabric Menders, Except Garment	10	Moderate-term on-the-job training
49-9094	Locksmiths and Safe Repairers	10	Moderate-term on-the-job training
49-9095	Manufactured Building and Mobile Home Installers	10	Moderate-term on-the-job training
49-9096	Riggers	11	Short-term on-the-job training

Signal and Track Switch Repairers   10   Moderate-term on-the-job training   49-9098   Helpersinstallation, Maintenance, and Repair Workers   11   Short-term on-the-job training   Moderate-term on-the-job t	Standard Occupation Classification (SOC)*		Training Requirements	
49-9098   Helpers-Installation, Maintenance, and Repair Workers, All Other         11         Short-term on-the-job training           99-9099   Installation, Maintenance, and Repair Workers, All Other         8         Work experience in a related occupation           51-2011   Aircraft Structure, Surfaces, Rigging, and Systems         9         Long-term on-the-job training           51-2021   Coll Winders, Tapers, and Finishers         11         Short-term on-the-job training           51-2021   Coll Winders, Tapers, and Finishers         11         Short-term on-the-job training           51-2021   Coll Winders, Tapers, and Finishers         11         Short-term on-the-job training           51-2021   Coll Winders, Tapers, and Finishers         11         Short-term on-the-job training           51-2021   Coll Winders, Tapers, and Finishers         11         Short-term on-the-job training           51-2021   Coll Winders, Tapers, and Finishers         11         Short-term on-the-job training           51-2022   Coll Coll Winders, Tapers, and Finishers         11         Short-term on-the-job training           51-2023   Electrical and Other Machine Assemblers         10         Moderate-term on-the-job training           51-2021   English Sams Assemblers         10         Moderate-term on-the-job training           51-2021   Training Device Assemblers, Adjusters, and Calibrators         10         Moderate-term on-the-job training <th>Code</th> <th>•</th> <th>Code</th> <th></th>	Code	•	Code	
49-9099 Installation, Maintenance, and Repair Workers, All Other 51-1011 First-Line Supervisors/Managers of Production and Operating Workers 51-2011 Aircraft Structure, Surfaces, Rigging, and Systems 51-2022 Ielectroal and Electronic Equipment Assemblers 51-2022 Electroal and Electronic Equipment Assemblers 51-2023 Electroanechanical Equipment Assemblers 51-2023 Electromechanical Equipment Assemblers 51-2031 Eingine and Other Machine Assemblers 51-2031 Eingine and Other Machine Assemblers 51-2031 Eingine and Other Machine Assemblers 51-2041 Structural Metal Fabricators and Fitters 51-2041 Structural Metal Fabricators and Fitters 51-2051 Eingine and Other Machine Assemblers 51-2093 Timing Device Assemblers, Adjusters, and Calibrators 51-2093 Timing Device Assemblers, Adjusters, and Calibrators 51-2093 Timing Device Assemblers, Adjusters, and Calibrators 51-2094 Structural Metal Fabricators, All Other 51-3012 Bakers 51-3023 Eventhers and Meat Cutters 51-3024 Eventhers and Meat Cutters 51-3025 Eventhers and Meat Packers 51-3026 Eventhers and Meat Packers 51-3027 Eventhers and Meat Packers 51-3028 Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders 51-3039 Food Batchmakers 51-3039 Food Batchmakers 51-3039 Food Batchmakers 51-4012 Numerical Tool and Process Control Programmers 51-4012 Numerical Tool and Process Control Programmers 51-4021 Numerical Tool and Process Control Programmers 51-4023 Rolling Machine Setters, Operators, and Tenders, Metal and Plastic 51-4033 Grinding, Lapping, Polishing, and Buffing Machine Tool 51-4031 Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic 51-40401 Auguster and Plastic 51-4041 Moderate-term on-the-job training 51-4042 Forging Machine Setters, Operators, and Tenders, Metal and Plastic 51-40431 Cutting, Punching, and Eress Machine Setters, Operators, and Tenders, Metal and Plastic 51-40431 Cutting, Punching, and Eress Machine Setters, Operators, and Tenders, Metal and Plastic 51-40401 Moderate-term on-the-job training 5				•
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51-2031 Engine and Other Machine Assemblers 51-2041 Structural Metal Fabricators and Fitters 51-2041 Fiberglass Laminators and Fabricators 51-2092 Team Assemblers 51-2093 Priming Device Assemblers, Adjusters, and Calibrators 51-2094 Assemblers and Fabricators, All Other 51-2095 Assemblers and Fabricators, All Other 51-2096 Assemblers and Fabricators, All Other 51-2097 Assemblers and Fabricators, All Other 51-2098 Assemblers and Fabricators, All Other 51-2099 Assemblers and Fabricators, All Other 51-3011 Bakers 51-3012 Butchers and Meat Cutters 51-3012 Butchers and Meat Cutters 51-3012 Meat, Poultry, and Fish Cutters and Trimmers 51-3021 Meat, Poultry, and Fish Cutters and Trimmers 51-3022 Meat, Poultry, and Fish Cutters and Trimmers 51-3023 Food and Tobacco Roasting, Baking, and Drying Machine 61-3029 Food Batchmakers 61-3029 Food Batchmakers 61-3039 Food Batchmakers 61-3039 Food Batchmakers 61-3039 Food Cooking Machine Operators and Tenders 61-3039 Food Development of Palastic 61-4012 Numerical Tool and Process Control Programmers 61-4012 Numerical Tool and Process Control Programmers 61-4021 Rivering and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic 61-4022 Forging Machine Setters, Operators, and Tenders, Metal and Plastic 61-4023 Rolling Machine Setters, Operators, and Tenders, Metal and Plastic 61-4023 Prilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic 61-4023 Origing Machine Setters, Operators, and Tenders, Metal and Plastic 61-4023 Prilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic 61-4023 Milling and Plastic 61-4024 Machine Setters, Metal and Plastic 61-4025 Pourers and Casters, Metal and Plastic 61-4034 Machine Setters, Metal and Plastic 61-4035 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic 61-4036 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic 61-4036 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic 61-4036 Milling and Plan	51-2022	Electrical and Electronic Equipment Assemblers	11	Short-term on-the-job training
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51-2091         Fiberglass Laminators and Fabricators         10         Moderate-term on-the-job training           51-2092         Team Assemblers         10         Moderate-term on-the-job training           51-2093         Timing Device Assemblers, Adjusters, and Calibrators         10         Moderate-term on-the-job training           51-3019         Bakers         9         Long-term on-the-job training           51-3021         Butchers and Meat Cutters         9         Long-term on-the-job training           51-3021         Butchers and Meat Packers         10         Moderate-term on-the-job training           51-3021         Slaughterers and Meat Packers         10         Moderate-term on-the-job training           51-3091         Food and Tobacco Roasting, Baking, and Drying Machine         11         Short-term on-the-job training           51-3092         Food Batchmakers         11         Short-term on-the-job training           51-3093         Food Cocking Machine Operators and Tenders         11         Short-term on-the-job training           51-4011         Computer-Controlled Machine Tool Operators, Metal and         10         Moderate-term on-the-job training           51-4021         Numerical Tool and Process Control Programmers         9         Long-term on-the-job training           51-4022         Forging Machine Setters, Op	51-2031	Engine and Other Machine Assemblers	11	Short-term on-the-job training
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51-3011       Bakers       9       Long-term on-the-job training         51-3021       Butchers and Meat Cutters       9       Long-term on-the-job training         51-3022       Meat, Poultry, and Fish Cutters and Trimmers       11       Short-term on-the-job training         51-3023       Slaughterers and Meat Packers       10       Moderate-term on-the-job training         51-3091       Food and Tobacco Roasting, Baking, and Drying Machine       11       Short-term on-the-job training         51-3092       Food Batchmakers       11       Short-term on-the-job training         51-3093       Food Cooking Machine Operators and Tenders       11       Short-term on-the-job training         51-4011       Computer-Controlled Machine Tool Operators, Metal and Plastic       10       Moderate-term on-the-job training         51-4012       Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic       10       Moderate-term on-the-job training         51-4021       Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic       10       Moderate-term on-the-job training         51-4023       Rolling Machine Setters, Operators, and Tenders, Metal and Plastic       10       Moderate-term on-the-job training         51-4031       Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic       10       Moderate-term on		Timing Device Assemblers, Adjusters, and Calibrators		Moderate-term on-the-job training
51-3021       Butchers and Meat Cutters       9       Long-term on-the-job training         51-3022       Meat, Poultry, and Fish Cutters and Trimmers       11       Short-term on-the-job training         51-3023       Slaughterers and Meat Packers       10       Moderate-term on-the-job training         51-3091       Food and Tobacco Roasting, Baking, and Drying Machine       11       Short-term on-the-job training         51-3092       Food Batchmakers       11       Short-term on-the-job training         51-3093       Food Cooking Machine Operators and Tenders       11       Short-term on-the-job training         51-4011       Computer-Controlled Machine Tool Operators, Metal and Plastic       10       Moderate-term on-the-job training         51-4012       Numerical Tool and Process Control Programmers       9       Long-term on-the-job training         51-4021       Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic       10       Moderate-term on-the-job training         51-4022       Forging Machine Setters, Operators, and Tenders, Metal and Plastic       10       Moderate-term on-the-job training         51-4031       Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic       10       Moderate-term on-the-job training         51-4032       Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic		Assemblers and Fabricators, All Other		•
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	51-4111		9	Long-term on-the-job training
51-4121 Welders, Cutters, Solderers, and Brazers 9 Long-term on-the-job training	51-4121	Welders, Cutters, Solderers, and Brazers		<u> </u>

S	Standard Occupation Classification (SOC)*		Training Requirements
Code	Occupation Title	Code	Training Description
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators,	10	Moderate-term on-the-job training
	and Tenders		
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	10	Moderate-term on-the-job training
51-4192	Lay-Out Workers, Metal and Plastic	10	Moderate-term on-the-job training
51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	10	Moderate-term on-the-job training
51-4194	Tool Grinders, Filers, and Sharpeners	10	Moderate-term on-the-job training
51-4199	Metal Workers and Plastic Workers, All Other	10	Moderate-term on-the-job training
	Bindery Workers	11	Short-term on-the-job training
	Bookbinders	10	Moderate-term on-the-job training
51-5021	Job Printers	9	Long-term on-the-job training
	Prepress Technicians and Workers	7	Postsecondary vocational training
51-5023	Printing Machine Operators	10	Moderate term on the job training
51-6011	Laundry and Dry-Cleaning Workers  Processor, Taytile, Corment, and Related Materials	10	Moderate-term on-the-job training
51-6021 51-6031	Pressers, Textile, Garment, and Related Materials	11 10	Short-term on-the-job training
	Sewing Machine Operators Shoe and Leather Workers and Repairers	9	Moderate-term on-the-job training
51-6041 51-6051	Sewers, Hand	9 11	Long-term on-the-job training Short-term on-the-job training
51-6051	Tailors, Dressmakers, and Custom Sewers	9	Long-term on-the-job training
51-6061	Textile Bleaching and Dyeing Machine Operators and	10	Moderate-term on-the-job training
	Tenders		, ·
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	10	Moderate-term on-the-job training
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	9	Long-term on-the-job training
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	10	Moderate-term on-the-job training
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	10	Moderate-term on-the-job training
51-6092	Fabric and Apparel Patternmakers	9	Long-term on-the-job training
	Upholsterers	9	Long-term on-the-job training
51-6099	Textile, Apparel, and Furnishings Workers, All Other	11	Short-term on-the-job training
51-7011	Cabinetmakers and Bench Carpenters	9	Long-term on-the-job training
51-7021	Furniture Finishers	9	Long-term on-the-job training
51-7031	Model Makers, Wood	9	Long-term on-the-job training
51-7032	Patternmakers, Wood	9	Long-term on-the-job training
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	10	Moderate-term on-the-job training
51-7042	Woodworking Machine Setters, Operators, and Tenders,	10	Moderate-term on-the-job training
	Except Sawing		
51-7099	Woodworkers, All Other	10	Moderate-term on-the-job training
51-8011	Nuclear Power Reactor Operators	9	Long-term on-the-job training
	Power Distributors and Dispatchers	9	Long-term on-the-job training
	Power Plant Operators	9	Long-term on-the-job training
51-8021	Stationary Engineers and Boiler Operators	9	Long-term on-the-job training
51-8031	Water and Liquid Waste Treatment Plant and System Operators	9	Long-term on-the-job training
51-8091	Chemical Plant and System Operators	9	Long-term on-the-job training
51-8092	Gas Plant Operators	9	Long-term on-the-job training
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	9	Long-term on-the-job training
51-8099	Plant and System Operators, All Other	9	Long-term on-the-job training
51-9011	Chemical Equipment Operators and Tenders	10	Moderate-term on-the-job training
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	10	Moderate-term on-the-job training

Standard Occupation Classification (SOC)*		Training Requirements	
Code	Occupation Title	Code	Training Description
51-9021	Crushing, Grinding, and Polishing Machine Setters,	10	Moderate-term on-the-job training
E4 0000	Operators, and Tenders	40	Madagata taga ay tha iah tugining
51-9022 51-9023	Grinding and Polishing Workers, Hand Mixing and Blending Machine Setters, Operators, and	10 10	Moderate-term on-the-job training Moderate-term on-the-job training
31-9023	Tenders	10	Moderate-term on-the-job training
51-9031	Cutters and Trimmers, Hand	11	Short-term on-the-job training
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	10	Moderate-term on-the-job training
51-9041	Extruding, Forming, Pressing, and Compacting Machine	10	Moderate-term on-the-job training
E4 00E4	Setters, Operators, and Tenders	40	Madagata tang ay tha inh tunining
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	10	Moderate-term on-the-job training
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	10	Moderate-term on-the-job training
51-9071	Jewelers and Precious Stone and Metal Workers	7	Postsecondary vocational training
51-9081	Dental Laboratory Technicians	9	Long-term on-the-job training
51-9082	Medical Appliance Technicians	9	Long-term on-the-job training
51-9083	Ophthalmic Laboratory Technicians	10	Moderate-term on-the-job training
51-9111	Packaging and Filling Machine Operators and Tenders	11	Short-term on-the-job training
51-9121	Coating, Painting, and Spraying Machine Setters, Operators,	10	Moderate-term on-the-job training
51-9122	and Tenders Painters, Transportation Equipment	9	Long-term on-the-job training
51-9122	Painting, Coating, and Decorating Workers	11	Short-term on-the-job training
51-9131	Photographic Process Workers	10	Moderate-term on-the-job training
51-9132	Photographic Processing Machine Operators	11	Short-term on-the-job training
51-9141	Semiconductor Processors	6	Associate degree
51-9191	Cementing and Gluing Machine Operators and Tenders	10	Moderate-term on-the-job training
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators	10	Moderate-term on-the-job training
E4 0402	and Tenders	10	Madarata tarm on the job training
51-9193	Cooling and Freezing Equipment Operators and Tenders Etchers and Engravers	10 9	Moderate-term on-the-job training Long-term on-the-job training
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	10	Moderate-term on-the-job training
0.0.00	morable, emapore, and educate, except motal and i lactic	.0	moderate term on the jee training
51-9196	Paper Goods Machine Setters, Operators, and Tenders	10	Moderate-term on-the-job training
51-9197	Tire Builders	10	Moderate-term on-the-job training
51-9198	HelpersProduction Workers	11	Short-term on-the-job training
51-9199	Production Workers, All Other	10	Moderate-term on-the-job training
53-1011	Aircraft Cargo Handling Supervisors	8	Work experience in a related occupation
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and	8	Work experience in a related
	Material Movers, Hand	Ū	occupation
53-1031	First-Line Supervisors/Managers of Transportation and	8	Work experience in a related
	Material-Moving Machine and Vehicle Operators		occupation
53-2011	Airline Pilots, Copilots, and Flight Engineers	5	Bachelor's degree
	Commercial Pilots	7	Postsecondary vocational training
53-2021	Air Traffic Controllers	9	Long-term on-the-job training
53-2022 53-3011	Airfield Operations Specialists  Ambulance Drivers and Attendants, Except Emergency	9 10	Long-term on-the-job training  Moderate-term on-the-job training
33-3011	Medical Technicians	10	woderate-term on-the-job training
53-3021	Bus Drivers, Transit and Intercity	10	Moderate-term on-the-job training
53-3022	Bus Drivers, School	11	Short-term on-the-job training
53-3031	Driver/Sales Workers	11	Short-term on-the-job training
53-3032	Truck Drivers, Heavy and Tractor-Trailer	10	Moderate-term on-the-job training
53-3033	Truck Drivers, Light or Delivery Services	11	Short-term on-the-job training
53-3041	Taxi Drivers and Chauffeurs  Meter Vehicle Operators, All Other	11 11	Short-term on-the-job training
53-3099	Motor Vehicle Operators, All Other	11	Short-term on-the-job training

Standard Occupation Classification (SOC)*			Training Requirements	
Code	Occupation Title	Code	Training Description	
53-4011	Locomotive Engineers	10	Moderate-term on-the-job training	
53-4012	Locomotive Firers	10	Moderate-term on-the-job training	
53-4013	Rail Yard Engineers, Dinkey Operators, and Hostlers	10	Moderate-term on-the-job training	
53-4021	Railroad Brake, Signal, and Switch Operators	10	Moderate-term on-the-job training	
53-4031	Railroad Conductors and Yardmasters	10	Moderate-term on-the-job training	
53-4099	Rail Transportation Workers, All Other	10	Moderate-term on-the-job training	
53-5011	Sailors and Marine Oilers	11	Short-term on-the-job training	
53-5021	Captains, Mates, and Pilots of Water Vessels	8	Work experience in a related occupation	
	Motorboat Operators	10	Moderate-term on-the-job training	
53-5031	1 0	7	Postsecondary vocational training	
53-6011	Bridge and Lock Tenders	11	Short-term on-the-job training	
53-6021	Parking Lot Attendants	11	Short-term on-the-job training	
53-6031	Service Station Attendants	11	Short-term on-the-job training	
53-6041	Traffic Technicians	11	Short-term on-the-job training	
53-6051	Transportation Inspectors	8	Work experience in a related occupation	
53-6099	Transportation Workers, All Other	11	Short-term on-the-job training	
53-7011	Conveyor Operators and Tenders	11	Short-term on-the-job training	
	Crane and Tower Operators	9	Long-term on-the-job training	
53-7031	<b>O</b> 1	10	Moderate-term on-the-job training	
	Excavating and Loading Machine and Dragline Operators	10	Moderate-term on-the-job training	
	Loading Machine Operators, Underground Mining	10	Moderate-term on-the-job training	
53-7041	Hoist and Winch Operators	10	Moderate-term on-the-job training	
53-7051	Industrial Truck and Tractor Operators	11	Short-term on-the-job training	
53-7061	Cleaners of Vehicles and Equipment	11	Short-term on-the-job training	
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	11	Short-term on-the-job training	
53-7063	Machine Feeders and Offbearers	11	Short-term on-the-job training	
	Packers and Packagers, Hand	11	Short-term on-the-job training	
	Gas Compressor and Gas Pumping Station Operators	10	Moderate-term on-the-job training	
	Pump Operators, Except Wellhead Pumpers	10	Moderate-term on-the-job training	
	Wellhead Pumpers	10	Moderate-term on-the-job training	
53-7081	,	11	Short-term on-the-job training	
53-7111	•	11	Short-term on-the-job training	
53-7121	Tank Car, Truck, and Ship Loaders	10	Moderate term on the job training	
53-7199	Material Moving Workers, All Other	10	Moderate-term on-the-job training	

<sup>\*</sup>For more information on the Standard Occupational Classification (SOC) system, see: <a href="www.bls.gov/soc/socguide.htm">www.bls.gov/soc/socguide.htm</a>

These descriptions are provided as general guidelines and are **not** absolute requirements for employment.

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